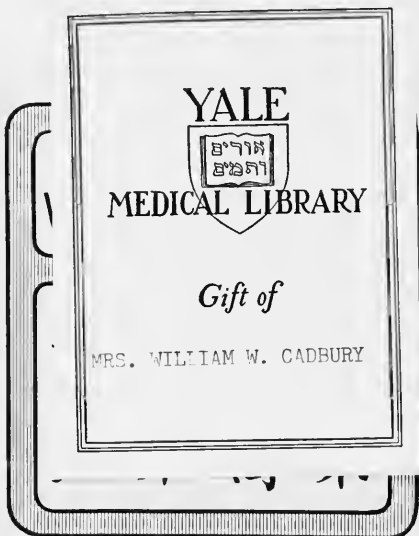


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THE
China Medical Missionary Journal.

VOL. III.

MARCH 1889.

No. 1.

OUR MEDICAL STUDENTS.

By ROBERT C. BEEBE, M.D.

The Medical Missionary is placed in a peculiar position in that he has not only the ordinary problems of the physician and surgeon, but he has also what are often harder to solve—the questions of polity, management and work, connected with his position as an evangelist, “sent to a people of a strange speech and an hard language.” His time is precious, various and attractive are the opportunities that open up before him, and the great and all-absorbing question he has to consider is, How can I so utilize my time as most to serve the great work to which I have been called ?

Among the many questions that arise and that must be considered in this spirit, is that of our Medical Students. This may be a solved problem to many of my colleagues. Some of them, I doubt not, have come through long experience to conclusions that we who are later on the field would most gladly hear, and it is with the hope that these valuable ideas may be called out that I have approached the subject. I would have what I say considered as suggestive rather than as the final dictum of matured thought.

The question of educating Medical Students naturally presents itself in the following order: *First.*—Shall I educate Medical Students at all? *Second.*—What students shall I educate? and, *Third.*—What shall be the extent and character of their education?

One does not have to be in the work long to feel inclined to answer the first question affirmatively. We must have help, native help, and that well trained. To get such help we must train it, thus by the course of events and the force of circumstances, that question is answered to the most of us.

Then arises the second division of the problem,—Shall I limit my instruction to those whom I design for mission helpers, or shall I prepare other young men also, to go out as independent physicians and surgeons among this people?

This is not so easy to answer, and yet it does not present equal difficulties to all. It must be determined, it seems to me, according to our individual responsibility. I believe in the special oversight and care of a Divine Providence, and I believe that the Lord called me to be a physician as much as he has called others to be preachers. Every Medical Missionary is, or should be, as much chosen and called of God as is his clerical brother. The Lord often gives him a wider influence, a greater responsibility and a larger field. He has a higher calling than the ordinary physician at home,—St. Luke, “the beloved physician,” is his prototype. He is a Surgeon in the Holy war,—a knight of the Cross, on whose shield is inscribed Salvation and whose sword is faith. Therefore he may not step aside for minor things. More weighty matters demand his energies. His high calling cannot be sacrificed for uncertain or questionable issues. The vow is upon him, and that he must fulfil. Purely benevolent and philanthropic work is not to be disparaged. The education of people in any line of truth and usefulness is most noble and praiseworthy, and happy and contented should any physician be if God should call him to such work alone. I have no doubt that the providential circumstances of some Medical Missionaries so clearly point out their line of duty that there is little room for mistake. A special opportunity or fitness may make what to others are side issues to these the real business of life. These I do not wish to be considered as ignoring or deprecating. Theirs is the exceptional, and I would only assume that we are not called as a body to undertake the exceptional. Therefore our first duty is to our mission work, and with many of us it does not extend beyond it. We are to give our instruction to those who are likely to use their abilities for the extension of Christ's kingdom.

It may be claimed that every rightly educated man is a force in extending the influences of Christianity. That may be true, but as long as our ranks need drilled men, and the battle is on, we may not step aside to train an independent and undirected squad. The value of Western Medicine to a young Chinaman who goes out among his people to make his own way, seems to me to be over-estimated, and his probability of success as yet an unknown quantity. Will his value be so generally recognized as to make it possible for him to get the extra fees that expensive medicines and appliances require? There are so many chronic troubles, perpetuated, even with the best treatment, by the habits of life, the homes and surroundings of patients, that the average Chinaman will fail to see the superiority of Western Medicine when practised by a native. He will, perhaps, concede superiority in Surgery, but I doubt if there be many who will have the confidence, either as surgeons to take the risks of an operation among this suspicious and mercenary people, where a fatal result might mean the forfeit of their own lives, at least their means, or as patients to submit to an operation at the hands of their countrymen.

With a foreigner to give moral support and real help when needed, and in a place where there is some resource in time of trouble, our Chinese physicians and surgeons will develop. When the attitude of this Government changes and it is administered in justice, and the physician and surgeon is accorded a place and rank in the Army and Navy, with a source for his supplies, then will be opened a field that seems very questionable at present, as those who have gone out under the highest patronage seem to have ~~and~~ a not very desirable position or prospect.

The need of native help presses sorely on some of us. We should be relieved of much of the routine and drudgery that the most important things may have our attention. If the dispensary affords a field for missionary enterprise, why should we not have our circuit of native medical helpers and dispensaries associated with our native preachers and chapels? Around every centre where a hospital is located are many open doors. Is it not possible to extend our work to these, to make the most of our opportunities, and lay hold of every place and form our strategic point, command and marshal a larger force for Christ? If so, then to many of us this part of the problem is solved. The most direct work and plans for evangelization demand our first and chief endeavor. This, for the present, is all we can do, and to many who are alone in the work this is more than they can accomplish.

The third phase of the problem remains, and, I find, has various solutions at the hands of my brethren. Some have the highest ideal, and consider a knowledge of English necessary, holding that the medical literature that exists in Chinese is inadequate for their education, that they should have a wider range of reading than is possible in Chinese at present, and that they should keep abreast of the latest developments in Medical Science, and to do so they must read English. Applying this question to our helpers some difficulties arise. If we give a boy such a knowledge of English that he is able to study our medical works, we have put him in a position where he is able to secure a situation so tempting in its emolument that the meagre mission salary and the claims of the work are apt to go down before his glowing dreams, and our helper is lost to us with perhaps the labor spent on him.

Unless there is a school where English is taught, from which we can draw our students, the task of teaching English and then Medicine becomes one too long and exacting for the busy Medical man with hospital and dispensary work besides. It would be very well indeed to have students who could go on with their studies using the text-books of our home schools, but can the Medical Missionary get and retain them? I leave that for someone with wider experience to answer.

With the works we have in Chinese and the personal instruction we can give both in theoretical and clinical Medicine and Surgery, I believe we can train

efficient native medical helpers. That we have at present duties to these only, and that we should make them as highly proficient as possible, and true followers of Him who went about doing good, is the trend of my thought on the student question.

*Philander Smith Memorial Hospital,
Nanking.*

CASES TREATED IN THE LONDON MISSION "VICEROY'S" HOSPITAL, TIENTSIN.

By the late J. K. MACKENZIE, M.R.C.S., L.R.C.P.

CASE I.

Hepatic Abscess.—Operation.—Recovery.

CHANG-CH'YEN-SHÊN. Aged 39. A soldier. Ill two months.

1886, *March 12.*—Admitted to hospital, complaining of pain over hepatic region, night sweats, and much prostration. Liver dulness largely increased, especially in the right mammary line.

Aspirated, drawing off a pint of chocolate-coloured pus.

March 16.—Aspirated again, removing four ounces of pus.

March 20.—All pain gone and appetite good. Says his leave has expired and he must go back to camp.

June 15.—Again applied for admission. All the symptoms as formerly. Aspirated, giving relief. Remained in hospital nine days.

August 14.—Again admitted. Drew off a pint of thick pus.

August 17.—Removed 15 oz. of pus. Would not consent to further operative measures. Went out relieved after six days.

October 3.—Admitted for the fourth time. Has succeeded in getting a month's leave.

Patient in great agony. Kneels on the bed with his head touching his knees, and screaming with pain. Hepatic tumour much enlarged, with distinct fluctuation in epigastric region. Face worn and emaciated. Thready pulse.

Administered ether, and with antiseptic precautions inserted a full-sized trocar into the tumour just below the ribs; two pints of pus escaped through the cannula. Introduced drainage tube, and dressed with marine lint.

October 4.—Patient comfortable and free from pain. Temperature normal.

October 14.—Changed dressings daily. Very small quantity of pus in dressing. Shortened the tube. Appetite good.

October 21.—Removed tube.

October 26.—Wound quite healed. The enlargement has disappeared. Patient in perfect health. The temperature never went above 99° after operation.

CASE II.

Hepatic Abscess.—Operation.—Death.

YUAN-CH'UNG-KWANG. Aged 56. Farmer. Ill four months.

1887, March 7.—Admitted suffering from pain in the right hypochondrium, fever, night sweats, and much prostration. Patient is emaciated and very weak; pulse feeble. Liver enlarged downwards in the right mammary line, and tender upon pressure. Has had many rigors.

Inserted a fine exploring trocar into the liver below ribs, but failed to hit pus.

Chloride of Ammonium ordered, twenty grains three times a day.

March 9.—Pain less since the trocar was inserted, but the fever persists. Again punctured the liver with fine trocar and drew off two ounces of dark blood. Pain relieved. Quinine, ten grains, night and morning.

March 24.—Pain returned. No better.

Again needed the patient, and to the right of the ensiform appendix struck pus. By means of a large trocar and cannula introduced a good-sized drainage tube. Twenty-five ounces of chocolate-coloured pus came away. Dressed with marine lint.

March 26.—No pain, temperature normal. Much brighter and appetite better. Changed dressing.

April 4.—Changed dressing daily, as the discharge of pus continues free. Temperature has gone up again. Takes food badly.

April 10.—No pus coming from tube, but patient not improving as he should do.

April 13.—Again punctured the liver through the former opening, and drew off several ounces of pus. The temperature immediately fell from 102° F. to normal.

April 25.—The relief proved to be only temporary, as the patient died to-day exhausted.

Unfortunately, the temperature chart in this case has been mislaid, and cannot therefore be given.

CASE III.

Popliteal Aneurism.

WANG-LAO. Aged 33. Coolie. Tientsin.

1887, April 29.—Admitted to hospital with synovial enlargement of the left knee-joint; much pain, and inability to straighten the leg.

The patient is badly run down in health, having suffered for two months from much pain about the joint, with broken rest at night. He has an anxious, weary expression of the face. Complains much of constant throbbing in the neighbourhood of the joint.

April 29.—As the synovial distension was great, tapped and drew off a quantity of synovial fluid from the joint.

There is a well-marked aneurismal tumour in the Popliteal space, marked pulsation and bruit over the tumour, both of which disappear upon pressure of the femoral artery. Compression over the femoral causes the tumour to gradually disappear, but when this compression is removed it slowly distends its sac and attains its former proportions. Attempts to flex or straighten the limb give pain. The aneurism was not recognized upon admission, but after the synovial fluid was drawn off with only slight relief to the patient, a more careful examination of the joint revealed the aneurism.

He was ordered rest and tonics for awhile.

May 21.—Under chloroform applied ESMARCH's bandage to the limb, commencing at the toes and bandaging as far as the knee; then, avoiding pressure over the joint, carried the bandage up the thigh. Kept the limb bloodless for one hour and a half. After taking off the elastic bandage, digital compression of the femoral was maintained for a further two hours. The pulsation was found to have returned though with diminished force.

May 22.—Pain and distress from throbbing somewhat less. Applied a bag of shot over the femoral.

May 24.—Pulsation decidedly diminished; knee hot and painful. To use a lead and spirit lotion.

June 10.—Again put him under chloroform and applied ESMARCH's elastic bandage as before. Kept it on for two hours and a half. Upon removing the bandage a tourniquet was affixed to the limb, compressing the femoral in SCARPA's triangle. This was maintained for a further period of five hours. At the end of this time pulsation had quite ceased in the aneurism. He was under chloroform for five hours. Compression of the main artery was kept up for seven hours fifteen minutes; out of this time the limb was quite bloodless for two and a-half hours.

June 11.—No pulsation in the tumour, which is small and hard. Patient experiences great relief.

June 20.—Improving in health daily. SCOTT'S dressing to reduce the inflammatory thickening in the joint.

June 29.—No pain. Knee much smaller; can extend the limb much better. Wants to go out.

Remarks.—The patient was in too nervous a condition to stand prolonged digital compression without an anæsthetic. The treatment by compression under chloroform takes up a great deal of time, but having plenty of valuable assistance at hand this proved no difficulty. The patient required a very small quantity of the anæsthetic from time to time; once he came under its influence. It may not have been necessary to keep up compression for so long a time, but as the first attempt failed, we deemed it best to give the method a thorough trial, especially as the patient was bearing the chloroform well.

The presence of the synovitis, and considerable thickening after removal of the fluid, was evidently due to pressure of the aneurism causing irritation of the joint. The aneurism appeared, from its being very deeply seated in the popliteal space, to be connected with the anterior surface of the artery, and therefore as it enlarged it created an unusual amount of pain and irritation in the joint.

Not the slightest return of pulsation or pain occurred in the aneurism after the second attempt. Some heat and discomfort in the joint was experienced after each use of the elastic bandage, but a lead and spirit lotion caused it quickly to subside.

CASE IV.

Hepatic Abscess.—Operation.—Recovery.

SUN-HUAL-HSIN. Aged 47. Boatman, from Lin-ch'ing-chow.

1887, October 10.—Admitted in-patient.

Has had pain over hepatic region for ten days. History of hectic fever. Face has a haggard expression; has lost flesh rapidly of late. Percussion shows enlargement of right lobe of liver, extending two inches below the cartilages of the ribs in the nipple line.

Aspirated under the right costal cartilages and hit pus.

October 11.—Under chloroform and antiseptic precautions inserted a large drainage tube, through a cannula, into the abscess sac, close under the right costal cartilages. Drew off over 10 oz. of thick pus. Dressed with carbolic gauze and marine lint.

October 12.—Changed dressing. Tube acting freely. Dressed with GAMGEE'S tissue.

October 18.—The dressing has been changed every other day ; to-day there is no pus coming from tube.

October 22.—The great retraction of the liver has made the opening into the abscess cavity a valvular one, and the drainage tube is much compressed. No pus. Removed the tube. Appetite good. Temperature normal since operation.

October 25.—Patient complains of pain in the hepatic region. No appetite. Temperature 101° F. this morning.

November 7.—Quinine in 10-gr. doses, or Antipyrin, invariably brings down the temperature to normal, but it rises again the next day. Quinine, 10 grs., to be continued morning and evening.

November 14.—As the temperature rises as soon as the Quinine is stopped, and there is still some pain, inserted a needle into the seventh intercostal space, axillary line, and struck pus. At once introduced a drainage tube at the same spot, and two ounces of badly smelling pus came away. Washed out the tube with Iodine and water, and dressed with marine lint.

November 16.—Changed dressing.

„ 26.—Changed dressing about every other day.

December 5.—No pus for several days. Exuberant granulation around tube. Removed tube.

December 15.—Track of drainage tube slow to heal.

„ 30.—Quite healed. Patient strong and well, with good appetite and normal temperature.

Goes out.

TEMPERATURE.

		M.		E.	
October 11	...	...	...	98.4	
„ 24	...	Normal up to this date			
„ 25	...	101	...	101.4	Quinine
„ 26	...	Normal	...	100	„
„ 27	...	„	...	Normal	„
November 7	...	102.4	...	99	„
„ 10	...	Normal	...	101	„
„ 12	...	„	...	101.4	„
„ 14	...	100	...		2nd operation.

December 30.—The temperature never rose after the second operation.

CASE V.

Hepatic Abscess.—Operation.—Recovery.

Y'AN-MIN-CH'IEH. Aged 44. Soldier. Hu-nan.

1887, October 8.—Admitted in-patient.

Marked enlargement over left lobe of liver, extending downwards nearly to umbilicus.

Patient emaciated and looking very ill. Says he has had pain over the tumour for one month, with hectic fever. Has had marked perspirations frequently recurring.

Aspirated tumour, drawing off 16 oz. of chocolate-coloured pus.

October 10.—Under carbolic spray inserted a full-sized trocar and cannula into the left side of epigastrium close under the ribs, and drew off some 16 oz. of pus. Passed a drainage tube through the cannula to the bottom of the abscess cavity, and dressed with carbolic gauze and marine lint.

To take a Mixture of Acid Nitro. Muriatic dil. with Tincture of Nux Vomica.

October 12.—Changed dressings and syringed out the tube with carbolic lotion.

October 13.— do. free discharge of pus through the tube.

„ 14.— do.

„ 16.— do.

„ 18.— do.

„ 24.— do.

and removed the drainage tube, as for five

days there has been no pus.

October 30.—Quite well. Is gaining flesh rapidly; appetite good; no pain. The track of the tube has closed, and the orifice is puckered up close to the lower margin of the thorax.

All dullness on percussion downwards has disappeared. The temperature after his admission never went above 99° F. and this only twice.

CASE VI.

Hepatic Abscess.—Operation.—Recovery.

LU-CH'ING-CHIH. Aged 32. Tailor, from Tientsin. Has smoked opium for three years—half a mace daily.

1887, October 28.—Admitted into hospital.

Enlargement of left lobe of liver, extending as a painful tumour into the epigastric region. The pain has been very severe for ten days; previous to that

time he considered himself well. The patient is very emaciated and ill, with a cachectic look about the face, and a history of hectic for these ten days. Seven days before admission a native doctor had punctured the tumour with a red-hot needle.

October 29.—After aspirating and finding pus, introduced a full-sized drainage tube through a large cannula, and drew off one pint of chocolate-coloured pus. Introduced the tube in the epigastric region to the left of the middle line. Dressed with marine lint.

October 31.—Changed dressing.

November 21.—The dressings have been changed every other day. No pus. Tube removed.

December 1.—Chloride of Ammonium in 20-grain doses three times a day. This was given as the patient complained of some pain over the liver region. Temperature has been normal since the operation, and there is no rise to-day.

December 14.—No pain upon deep pressure. Patient in robust health. Face plump and healthier looking. Appetite good. Syr. Ferri Phos. Co.

December 20.—Goes out. Quite well.

He has lost his craving for opium since admission. It was administered in pill form, gradually reduced, for some time, and then stopped entirely.

Remarks.—Case I. is peculiar in that he is known to have had pus in the liver for 6½ months. He was admitted to hospital and his liver aspirated for the first time on March 12th, but it was not until October 3rd that the abscess was opened and drained. During the six months and a half he applied three times for treatment, each time getting relief, and then going back to the ordinary duties of the camp. He was in hospital prior to October 3rd altogether 23 days.

Case II. shows how a liver, in which there is a large collection of pus, may be explored more than once, and yet the abscess remain undiscovered.

This patient was in a very feeble condition upon admission. That he had more than one abscess is evident, for after the first one was opened and drained, though the temperature fell at the time, yet when no pus was coming through the tube, which remained quite patent, all the original symptoms returned, and a further introduction of the trocar discovered a new pus cavity, with again temporary relief to the patient. Yet in a day or two all his symptoms were as bad as ever, and he rapidly sank exhausted.

In Case IV. I think the abscess was single, and that the second operation was required in consequence of the considerable retraction of the liver, and the fact that the drainage tube was held so tightly in the valvular opening caused by this retraction that it could not readily be pushed to the bottom of the cavity, hence a small quantity of pus remained after the removal of the tube, and a second operation had to be undertaken to remove it.

The results obtained in these five cases—four recoveries and one death—show that single abscesses of the liver give very good results amongst the Chinese when opened antiseptically and well drained. Multiple abscesses must necessarily be fatal.

One lesson that has been strongly impressed upon my mind is, always to use an exploratory trocar in every doubtful case of hepatitis. In my experience, patients have not only suffered no ill effects from such action, but have invariably derived benefit therefrom. When pain and fever is associated with enlargement of the liver, the use of an exploring trocar will tend to clear up the diagnosis as to the presence or absence of pus. And when no pus is found, the escape of a few drops of blood will give immediate relief to the pain in most cases; indeed, without the withdrawal of blood the relief to the pain is often most marked. It is stated that in India such a line of procedure has become almost a routine part of practice. Here is a case in point :—

YANG-HUNG-FA. Aged 38.. Became an in-patient on August 30th, suffering from marked pain over the hepatic region. The liver reached nearly to the umbilicus, and was tender upon pressure. He said the enlargement had been there for two months, and that several rigors had occurred during this time. His temperature on admission was 103° F. I immediately inserted an exploring trocar in the liver below the ribs in the right mammary line, and, not finding pus, punctured the left lobe, but with the same result; however, some black blood was removed, and this venesection proved wonderfully beneficial. The next day there was no pain, though the tenderness upon pressure still remained. He was put upon Chloride of Ammonium and his bowels attended to. On September 8th, ten days after admission, he wanted to return home, as he felt well. His appetite was good, there was no pain, and only slight tenderness upon firm pressure. He could walk about without discomfort, and his temperature was normal. There was still very considerable enlargement of the organ remaining.

With regard to drugs, I find Chloride of Ammonium, in 20-grain doses three times a day, to be an invaluable remedy in non-suppurative hepatitis or in acute congestion of the liver.

HEMORRHAGIC DIATHESIS.

By ROBERT COLTMAN, jr.

Although cases coming under the heading of Hemorrhagic Diathesis are comparatively common in the United States, I have as yet only met with one instance of it in China. Whether this be due to the fact that surgical interference is a new thing, and that the relative number of the entire population who have undergone surgical operations is very small, or whether the element known as the "Bleeder family" is rare in this country, I do not know, but I hope the relation of the following case will excite enough interest to bring the experience of my medical brethren in China into print. In the latter part of October last I was consulted by a young man, 25 years of age, who complained that he could scarcely pass his water owing to gradual contraction of the meatus urinarius.

Upon examination I found a hard, fibrous growth in front of the glans penis involving the entire circumference of the prepuce for over an inch in length and so diminishing the calibre of the passage that I could not pass my finest probe through it. The man stated that he had had a chancre two years, before which had remained sore for a long time (several months) at the site of the present growth, and on its cicatrization the prepuce was much contracted and had continued to contract steadily the past two years, until now he was obliged to spend nearly his whole time in efforts of urination, and life was a burden to him.

Upon his consenting I etherized him and amputated the mass directly in front of the glans penis, in other words circumcising him. This was at three o'clock p.m. I immediately sutured the mucous membrane to the integument by five points of interrupted suture, but the hemorrhage was greater than at first. I then introduced, one at a time, six more points of suture until there was scarcely left room enough to put more in. I used Alum first, then MONSEL's salt, then styptic cotton, all without avail; the penis rapidly infiltrated with blood and serum, and within an hour was swollen to the size of a tea-cup and bleeding all round from under the clots formed by the styptics. This, however, gradually lessened, and at six p.m. I left the patient in charge of my assistant and went home to dinner, but in the midst of the meal was hastily summoned, my assistant sending word that the bleeding was worse than ever. I hastened back to find a small artery, which had become very much enlarged, was spurting with sufficient force to throw a stream of blood three feet. It was tied, and removing all the previous dressings I applied a fresh layer of styptic cotton steeped in MONSEL's solution around the wound and administered a fluid drachm of SQUIBB's Fl. Ext. of Ergot; repeated the dose of ergot in an hour, when all the bleeding stopped and did not recur again. On examining the amputated portion I found it to consist of

a cartilaginous ring an inch and a half in length and an inch in diameter, hollowed on its posterior surface like a cone, the apex presenting to the front, the base just in front of the glans penis; in this cavity was a small, flat stone, formed by urinary concretion, weighing ten grains.

On the second day after the operation a large slough formed in the infiltration on the dorsum of the penis. On the fifth day the stitches were removed, slight hemorrhage occurring, which was checked by cold water applications. The line of incision remained indurated and indisposed to heal for three weeks, when, upon placing the patient under Hydrarg. Chlor. Corrosiv., gr. $\frac{1}{10}$, et Potassii Iodidi, gr. v., three times daily, he rapidly got well, and is now able to urinate freely and comfortably. I feel that the ergot in this case was invaluable.

CASES TREATED IN MEDICAL MISSIONARY HOSPITAL, CANTON.

By MARY W. NILES, M.D.

Retroversion of Gravid Uterus.

Case I.—Chinese woman, resident of Canton, 45 years of age. Mother of five children. Admitted September 30th, 1888, stating that she had not passed a drop of urine for twenty-five days, and that she had been pregnant four lunar months. The Chinese woman, a medical student, who saw her, drew with catheter 19 pounds of urine. *October 1st.*—Patient entered hospital, bladder tense near the umbilicus and giving the general appearance to sight and touch of gravid uterus of sixth month. Catheter withdrew $23\frac{1}{2}$ pounds; gave emesis and elevated buttocks. After several hours tried reposition in knee and elbow position, with two fingers in vagina; also tried reposition through rectum, but was unsuccessful. *October 2nd.*—Introduced pear-shaped pessary into rectum and distended with air. Examined patient after ten hours, and found uterus in place. Patient required the use of catheter for a month before the bladder regained its power. *November 18th.*—Discharged well.

Case II.—Was called to see patient in Canton, said to be suffering from stone in the bladder. Patient, 36 years of age, had had six children. At the third confinement gave birth to twins, and had suffered from prolapsus ever

since. Patient said that ten days previously, at midnight, she was attacked with pain tenesmus, and had passed no urine since, neither had her bowels moved. She complained of constant bearing-down pains. Abdomen enlarged as at the sixth month of pregnancy, tender; bladder tense, felt on level with umbilicus. No stool retained. While drawing urine, placed patient in knee and elbow position, and with two fingers in vagina, raised the fundus, directing it toward side of pelvis, thus replacing it. Amount of urine eight pounds. *December 31st.*—Patient entered hospital. Bladder still distended, urine withdrawn to amount of four pounds. Cervix at os vaginae. Patient still under treatment.

REMINISCENCES—(continued).

By A. W. DOUTHWAITE, M.D., F.R.G.S.

In 1879 we removed to the city of Wen-chau, on the coast, and on entering the city I was at once struck with the mark of opium-smoking on the faces of the men I met. Hearing from one and another of the ravages that opium was causing there, I determined to do what I could to help those who were willing to give up the habit, and also to show that we as missionaries have nothing to do with the opium traffic. For this purpose I rented a large premises on one of the main streets, and, as far as my means would allow, fitted it up as a hospital and opium refuge.

As soon as my intention became known, the Taoti and all the lesser officials volunteered to help with money. The Hsien Magistrate called upon me in state one day to assure me that I might have as much money as I required. The British Consul, the Commissioner of Customs, and most of the foreigners also assisted me most liberally. Under these favourable auspices the hospital was opened, and during the first year I received into it 213 opium-smokers, all but two of whom were dismissed, cured of the habit,—that is, so far as medical treatment can effect a cure. In this matter, however, my experience has been like that of all who have attempted the cure of the opium habit, and probably before two years had elapsed, not more than five per cent of those who had been turned out as cured had kept their pledge of total abstinence from the accursed drug. I soon found out that I was engaged in an almost hopeless task, for with the opium-smoker, as with the confirmed drunkard, nothing but the grace of God can enable a man to throw off the pernicious habit, and unless he is truly converted

we can never feel sure that he will not, sooner or later, relapse. But my first year's work was not at all disappointing, for one man, at least, was brought to the knowledge of Christ as his Saviour.

When this man entered the hospital he was so emaciated, so thoroughly under the influence of opium, that his case seemed almost hopeless, and probably he would have been eventually dismissed as incurable had he not early in the course of treatment learned to trust in a power outside himself, for strength to overcome the craving for opium.

Soon after entering the hospital he commenced studying the Scriptures, and was often seen late on into the night reading the New Testament and other Christian books. When, at the expiration of a month, he was dismissed from the hospital cured, he came to thank me for the benefit he had received, but said nothing to indicate that he had experienced any change of heart.

On reaching home his first act, after greeting the family, was to remove from the shrine the gods which had been worshipped there for many years, which, together with the incense-jars, candlesticks and everything pertaining to idolatry, he pitched out into the courtyard. His mother and two brothers, seeing what he had done, came round him and begged him with tears not to ruin them and bring disgrace on the whole family by destroying their gods. His mother was almost mad with distress, and exhorted him to repent, but he stood his ground firmly, and said, "Since I have heard about the true God, I know that these are false, and to worship them is sin, so while I am in this house there will be no more idolatry here."

All his neighbours and friends came in, and in vain besought him to restore the dethroned gods to their shrine.

Seeing that their efforts were futile, they declared he must be mad; but a white-haired old man, a member of the clan, came forward and said, "Friends, you don't understand; he is not mad; I know all about it; he has been to that opium-hospital, and the foreign devil has given him a pill which has changed his nature, so he has no longer a Chinaman's heart but a foreign devil's heart. Now," he said, "we can do nothing with this man at present; let us leave him alone until the effect of the medicine has worn off, and then we may be able to reason with him." This explanation, though very absurd to us, was perfectly satisfactory to them, and they went away. But when after some days they returned, they were greatly astonished to find that not only the opium-smoker, but his mother and two brothers had also renounced idolatry and had decided to become Christians, "for," they said, "we have heard of the true God, and we know that all the gods we worshipped before were false." This change completely puzzled the people assembled, and one remarked, "We know that this man, Ho-ming, has been to the hospital and eaten the foreign devil's pills, but the others have never been there, and how is it they are so changed?" But the

same wise old man who had settled the question so satisfactorily on the previous occasion, came to the rescue again, and said, "I know all about it. Do you see, he not only took a pill himself, but he brought some home with him and put them in the water-pot, and all who drink of the water will come under the influence of the drug. Now," said he, "lest anybody else should be affected by that medicine, let us empty all the water from the pot." As they all agreed to this, they adjourned into the courtyard and gave vent to their indignation by smashing a hole in the water-kan—a large pot holding about 20 gallons of water. Then, after cursing the family and prophesying their everlasting ruin, they left them to their fate and retired. It must have seemed to them an easy matter to change the heart of a Chinaman, if that change could be accomplished by the swallowing of a pill. But what my pills could not do, the grace of God did do, for the whole family was converted, and within twelve months they were all admitted into church fellowship.

My old friend, the opium-smoker, became an earnest preacher of the Gospel, despite all the persecution he had to endure. His mother took a bold stand for Christ by inviting a missionary lady to visit her once a week, to preach the Gospel to her neighbours, whom she gathered together to hear.

The conversion of this family brought my work in Wen-chau to an end, for a number of the leading gentry of the city called on the officials to remonstrate with them for supporting an institution for the propagation of the hated Christian religion; and when, at the beginning of the third year, I asked the Taotai if he and the other officials would be willing to continue their aid, so freely offered when the place was first opened, he replied that he would consult the District Magistrate; and after a few days I received a verbal message to the effect that while they were willing to give freely towards the support of the medical work, they had no sympathy with the preaching of a foreign religion, and therefore must decline to continue their subscriptions. Soon after that the hospital was closed, and as my health failed I left the city, and heard no more of the converted opium-smoker or his family for several years.

On New Year's Eve, 1886, while on a journey, I arrived late at night at the city of Shao-hing, in Chekiang Province, and several of the native Christians came down to my boat to welcome me. The first man who approached seemed exceedingly delighted to meet me, but as I did not recognize him, my response to his salutations were not specially hearty.

Perceiving this he held up his lantern before his face, saying, "Look at me, don't you know me?" "No," I replied, "I don't." "What!" he said, "you saved my life and saved my soul, and yet you don't know me; that's strange. I'm HO-MING, the man you cured of opium-smoking in Wen-chau six years ago." "Ah!" I said, "now I know you; but no wonder I did not recognize you, you are so changed." "Yes," he replied, "by the grace of God, I am changed." He

informed me that his mother had died trusting in Jesus, and that his two brothers had been led astray by the Jesuits, but he felt sure they were true Christians, and would eventually be brought back to the purer faith of the "Jesus religion." He himself was then, and had been for several years, engaged in colportage work for one of the Bible Societies.

(To be continued.)

EXTRAORDINARY GUNSHOT WOUND OF THE THIGH.

By A. L. MACLEISH, M.A., M.B., C.M.

(1)—SIAPU TSUN, male, aged 34, a native of the Pescadore Islands, was admitted to the Amoy Mission Hospital on January 7th, 1887. He stated that on March 29th, 1885, while engaged with his fellow-villagers in attempting to prevent the French marines from landing at Makung, the group of men among whom he was stationed was dispersed by the fall of a live shell in their midst; that while turning to run he perceived one of the enemy aiming at him with a rifle, the bullet of which presently struck him on the outer side of the right thigh, and, in passing into the limb, carried with it an iron padlock key,* which he wore suspended by a cord from his girdle.

There was free hæmorrhage from the wound, which was stayed by pressure and astringent applications. An abscess formed on the inner aspect of the front of the thigh, discharging, 14 days after the wound was inflicted, a large quantity of pus, some fragments of cloth, and part of a bullet. When the swelling subsided, the key, which he at first thought had been lost, was discovered imbedded in the tissues, where it had since remained undisturbed, the only change being that latterly the point of it had appeared through the skin. On examination a vertical sinus was found to the inner side of the anterior aspect of the thigh, from the orifice of which a tiny iron point protruded, close to which another similar point could be felt through the skin. On palpation the limits of the sinus could be defined by induration passing upwards for more than

* The common Chinese padlock key consists of a straight slip of iron or brass, one extremity of which is turned up at right angles to the shank, and either perforated or cut into two small prongs; this end, on being pushed home into the lock, disengages the spring wards, and pushes out the bolt.

3 in., the upper end being situated in the adductor longus muscle at a depth of about 1 in. from the surface. This indurated mass was parallel to the axis of the limb, and distant 2 in. from the line of the femoral artery in SCARPA's triangle, its orifice, where the point of the key protruded, being about 1 in. below the level of the apex of the triangle. Besides this orifice, there was another opening into the sinus at about its middle, where the key could be touched with a probe. A cicatrix close to the apex of the triangle indicated the site of the opening where the abscess sac had discharged its contents. A cicatrix, about 1 in. below and a little in front of the great trochanter, was indicated as the point of entrance of the bullet. Sensation and circulation in the thigh and leg were normal.

On the day following admission, the lower end of the sinus was opened, and an attempt was made to extract the key with forceps. It was found, however, that its upper end was firmly held among the tissues. The sinus was then still further opened, and the little finger, being passed up along the key, discovered a mass of fibrous tissue crossing the sinus from side to side. This was cautiously divided with scissors, and the key liberated. On extraction it was found to be a slip of iron, $\frac{1}{4}$ in. broad, nearly $\frac{1}{8}$ in. thick, and $5\frac{1}{2}$ in. long; the upper third was bent over the middle third in the form of a rough loop, its last $\frac{3}{4}$ in. lying along the shank, so that its somewhat tapered end came to $1\frac{1}{2}$ in. from the point of the key, thus diminishing its measurement from point to loop to $3\frac{1}{4}$ in. It was through this loop that the mass of fibrous tissue above mentioned passed. On probing the sinus further, a piece of a rifle-bullet was discovered lying loose in its upper end, and removed with forceps. To our great astonishment, the patient, on being shewn the key, protested that it was not his key. That, he said, was considerably longer than this one, and, instead of the large loop above described, had had the extreme end neatly turned over, to form an opening just large enough for the string by which it was suspended to pass through. He was particular on this point, having watched the blacksmith make the key, and carried it for some time. He admitted, however, that the prongs of the key extracted were identical in form with those of the one he had lost, and so eventually arrived at the conclusion that it was really his own key, the small loop on the end having been opened out, and a new, large loop made in its stead. On examining the piece of the bullet, we found that it had two curious markings,—one being a clear impress of coarse cloth, such as his trousers were made of; the other, a curved saddle-shaped indentation, with markings corresponding to those on the iron, which exactly fitted the bend of the loop of the key. The tapered end of the iron, where it lay against the shank after forming the loop, was twisted, shewing traces of having at one time had a different curvature from what it had now. Thus the specimens entirely confirmed the patient's statement.

Here then was an extraordinary freak. The bullet had struck the shank of the key, and carried the key with it into the thigh on its outer aspect. In its passage in front of the femur, the original loop had probably hitched on the bone, and so become opened out straight; at the same time the resistance thus applied at one end of the key, while the bullet was forcing the shank onwards, had bent the upper third of the slip of iron over, so as to form a new loop, enclosing part of the bullet. This large body had then passed right across the floor of SCARPA'S triangle, without inflicting any serious damage on blood-vessels or nerves. It was with great difficulty that the specimen was secured, the patient being so impressed with the wonderful change which the bullet had wrought upon his key, that he was determined to take it back to the Pescadores, to shew to his friends, and especially to the blacksmith who had made it. I much regret that I am at present unable to procure a sketch of the key and bullet, which would have rendered part of the above description unnecessary.

A CHEAP AND RELIABLE FILTER.

By H. W. BOONE, M.D.

Of all the inventions which have, up to the present time, been offered to the public as filters for the purification of water, only one has been thoroughly efficient. Animal Charcoal, Magnetic Carbide of Iron, Coke, Silicated Carbon, and other materials have been put forward as infallible, only to fail when the results of their working are carefully investigated. The "Chamberland Filter," in which the water passes through porous porcelain tubes under a high pressure, is perhaps the best filter ever invented. It requires water under high pressure to filter properly, is expensive, and the tubes have to be frequently taken out and burnt in the fire to remove the impurities collected in them, when the tubes can be re-inserted in the filter and again used. This filter will do for work on a large scale, where hundreds of gallons of water are needed for making mineral waters, ale, etc., etc. It is too expensive, complicated and troublesome for domestic use. Recent experiments by eminent chemists in Europe, England and the United States, have demonstrated the fact that celebrated filters, *e.g.*, "Maignen's," "The Silicated Carbon Filters," and others, the most highly recommended, filter well on the first day, not so well on the second, badly after four days, and that all of them, after a month's use, show more forms and organisms in the water that comes out of them than in the river-water which was carefully examined before it

was put into the filters. All filters become clogged up, have to be taken to pieces and thoroughly cleansed—a difficult job. If this cannot be done, attempts at purification are made by passing through them a solution of COXDY'S Fluid, with the addition of a few drops of strong sulphuric acid, and afterwards two or three gallons of pure or distilled water acidulated with hydrochloric acid. The charcoal in a filter may also be purified by heating it in an oven or furnace. In many filters, the filtering medium has to be removed frequently. To do all this thoroughly requires much time and care, and it must be done every two months at least to be of any use at all. Should one leave their filter, while away on a trip, and all the water in it evaporate, the living organisms in the filter will die and become putrescent. When this happens, as the writer knows from personal experience with "Maignen's" and other filters, neither chemicals or prolonged boiling will prevent the horrible, putrid taste from appearing in water run through such a filter.

The experience of the writer led him to purchase a new filter every other year, and to purify his filter, of whatever pattern, every two months. All this was costly and troublesome. He then tried a large funnel and filtering paper, changing the paper every day. This gave good results, except when the paper tore and let the water all through at once. In the year 1885, a galvanized iron funnel, with a tapering point, and to hold one quart of water, was made to order by a Chinese coppersmith, cost eight cents. This funnel was suspended over a jar, a very small wad of absorbent cotton was rammed gently down to the point of the funnel and *boiled* water was put in the funnel. Every morning the funnel is washed with some of the filtered water. After the cotton wad has been removed, fresh cotton is inserted, and we have a new filter every day. A servant easily learns to clean the funnel, and bring it to have the new cotton put in. The cost is nominal, and the filter is perfectly secure and effective. By the simple device of making the wad tight or loose, the flow can be made slow or rapid. The cotton should be packed sufficiently to make the water come through drop by drop, but not too tight. My funnel will filter more than 2 gallons per day, and the amount filtered is only limited by the number of funnels one chooses to use.

NOTES ON MALARIA.

I will, with your permission, advance some few remarks upon the subject I have chosen, that of Malaria. Referring, in the first instance, to diathesis in relation to climate, I cannot do better than briefly recapitulate the few words Mr. HUTCHINSON says in this connection, that its effect upon the human constitution may be to quickly produce very severe disease, but, whether acute or

otherwise, attacks of arterial spasm, attended by visceral congestions, are almost constant phenomena. Again, its effects, whether exposure be continued or otherwise, are always permanent. One attack of malarial fever by no means prevents another. And finally, what he so aptly terms "malarial diathesis," is a well-marked one, and exists in greater or less degree in all who have ever come under the influence of its cause. The treatment generally adopted in these regions mainly consisted of Opium, Arsenic and large doses of Quinine, which were well borne, and, perhaps I may add, as distinctive treatment, the expressed oil from the liver of the Unpi (*Lota Maculosa*), a fresh water ling, abundant in the rivers and lakes of the north. Regarding giving Quinine in large doses, I found that such was indicated by experience, here advocating BARTHLOW's aphorism, "That as the elimination of Quinia takes place with considerable rapidity, the maximum curative effect is obtained by the administration of the whole amount required in a single dose, rather than by a succession of doses. The only case really of interest which recalls itself to me was one which was diagnosed and treated by Quinia, the only case I have ever seen—one of Malarial Orchitis, exhibiting itself in a half-breed who had suffered intensely from ague and who evidenced all the marks of severe malarial poisoning—was brought to me. The malarial nature of the complaint being suspected, a full dose of Quinia was given before the rise of temperature and was repeated daily. The beneficent effect of the Quinia was quickly noted, and so well marked it is, "that it becomes of great value as a therapeutic test in a doubtful case." In passing on, I would wish to touch upon the pathology of Malaria. All authors have, I believe, hitherto regarded "the pigment which in all cases of malarial cachexia accumulate in the blood and other tissues, as a product of disintegration of the red-blood corpuscles which have lost their vitality through the fever paroxysm," but Dr. AFANASSIEW, in his *Pathology of Malaria*, somewhat takes exception to this. He states that in all cases investigated by him the pigment presented a special form and bore no resemblance to the coloring matter of the red-corpuscles such as is commonly found with all its modifications in other pathological conditions and in melanotic tumours, and suggests an independent origin, inasmuch as if this granular pigment is compared with COHN'S micrococcus prodigiosus or *Patmella prodigiosa*, one is involuntarily led to conjecture the existence of a certain connexion between them. I am uncertain as to whether this connexion has yet been established, but it is perhaps not uninteresting to note in the *Can. Medical Record* of November of this year, three more cases reported by Dr. DE BEASÉ, of malarial disease, that were perfectly cured by an attack of facial erysipelas. Not only did the febrile paroxysms cease, but the phenomena of chronic malarial poisoning disappeared rapidly "after the erysipelas cocci had got the better of the malarial micro-organism." The question naturally arises, what is Malaria? and I fear our only answer is a somewhat stereotyped one, —that it is a non-contagious infectious disease and of itself alone capable of pro-

ducing Malarial Fever ; and in the subjoined classification, given by Dr. LITHGOW, the fact must be distinctly borne in mind that the relative difference is only one of degree; the poison itself, owing to existing conditions, is subject to variation both in quantity and quality :—

- 1.—Quartan Intermittent.
- 2.—Tertian.
- 3.—The Marked Intermittent.
- 4.—Double Tertian.
- 5.—Remittent.
- 6.—Continued.
- 7.—Pernicious.

but it must be remembered that these various forms of disease are but individualized effects of malarial poison.

NOTE.—Read before the Shanghai Medical Missionary Association, 12th January 1889.

The China Medical Missionary Journal.

VOL. III.

MARCH 1889.

No. 1.

INTRODUCTORY.

It was announced in our last number that a change of editors had taken place, the old editors declining a re-election. Dr. LYALL, who had joined the former corps of editors, is elected the senior editor, Drs. ATTERBURY, HODGE and BOONE being also elected. As is so often the case, the founders of the Journal were men pre-eminently fitted for the work. The eminent services which they had rendered to the cause of medical missions, their great experience, the skill of Drs. KERR, MACKENZIE and REIFSNYDER, in Surgical work, the acknowledged ability of Dr. KERR in putting medical works into Chinese for the benefit of native students, the success of Drs. KERR and MACKENZIE in their education of medical students, above all their earnest Christian labors, made them easily our leaders. All that they wrote, or inspired, came to us with an acknowledged authority. The Journal is the organ of the Medical Missionary Association of China, and, owing to the vast extent of the country, and the fact that we can so seldom meet together, it must always be our chief means for the interchange of ideas. During the past two years the publication of the Journal has brought us together as nothing before ever had done. From a lot of isolated men, each one working away by himself, not knowing what was done by others, neither gaining nor imparting knowledge, we have become a unit. We can and we do inspire one another to an emulation in well-doing. We have learnt many things, and there is an *esprit de corps* and a public opinion to guide us aright. As an association we have a power which no individuals working singly can hope to have. Our Association has been acknowledged by the International Medical Congress, and our Journal has been quoted in the journals of many lands. To the acknowledged ability and the varied talent of the above-named editors, we, the members of the Medical Missionary Association, owe much. Yet with all this the Journal would not have attained to the position which it now holds without the help of another man. The promoters of the Journal knew that there must be someone, residing in Shanghai, to assume the post of Business Manager and Editor. He must be on the spot where the Journal was issued, to give it form and shape, to arrange all the details of the management. His colleagues were many hundreds of miles away. He must

be able to act and to judge for himself; was deprived of the privilege of consulting with his co-labourers; could not divide the work or the responsibility with them. There was one man who possessed the love and the esteem of his brother missionaries; he held the degree of M.D. As Agent of the American Bible Society, as Editor of the *Recorder*, as pastor of a large congregation, as a man of years and large knowledge of men and of affairs, he was the man for the place. Still, could such a man, already overloaded with work, be induced to assume new duties of no light character. We proposed and we elected him Business Manager and editor. The result proved that we knew the nature of the man,—once make it clear to him that duty called, and there was no hesitation. The work must be done and it must be well done. Dr. GULICK assumed the offered position, and all his experience, his editorial skill, his varied wealth of learning, and that tact and judgement which have enabled him to carry to a successful issue all that he has undertaken, were put at our disposal. There was no pay, no worldly reward to be gained, but it was the Master's work. From the very beginning the Journal has been a success.

The June number of the Journal brought to us the sad news of the death of J. KENNETH MCKENZIE, the wise physician, the bold and successful surgeon, the generous, noble-hearted man and the Christian Missionary. To some of us it was the loss of a warm personal friend, endeared to us by years of intercourse. To us all it is a heavy loss—a leader has departed, but the example of his life is before us. In the words of one who knew him well, “Abundant success in this life and an abundant entrance into the next were his, because he gave God all the tithes which were His due, and devoted himself soul and body to His service.”

In assuming charge of the editorial work, we feel that a heavy burden is laid upon our shoulders. While we are grateful to our friends for the kindly feelings which prompted them to vote for us, we know that we are expected to keep the Journal up to the standard which it has always maintained. We feel our responsibility, and we know that, unless every member of our Association will help us, we cannot accomplish the task. We therefore beg you to contribute freely to our columns, to write fully and freely about the religious side of the work, to prepare papers which will set forth the prevailing diseases in the several localities where you reside; give us accounts of the causes of these complaints, statistics of the numbers of cases seen, the death-rate, if any, the most successful methods of treatment. It is by such work as this that we can make the columns of our Journal really useful, so that when we are in doubt we can turn to its pages for that information as to the diseases of China which we can obtain in no other way. Clinical notes, records of surgical operations, and accounts of cheap and successful appliances for the treatment of hip-joint or knee disease will be of great value. We are missionaries and we are physicians.

To succeed in both of these fields is our aim and object. Give us your hearty co-operation and then we can make the Journal what we all wish it to be—not a showy but useful record of our labors and of our experience.

H. W. B.

THE ALICE MEMORIAL HOSPITAL,

Hongkong, is under the sole control of The London Missionary Society, but funds for its support are chiefly raised by local subscriptions and *al fresco* fêtes. In the "Historical Sketch and Report of Six Months Work," published in 1887, Dr. CHALMERS states that at the first fête held on the evenings of the 12th and 13th November 1886, "a large number of ladies and gentlemen, by means of stalls and a variety of entertainments, and the Chinese by illuminations, puppet-shows and dramatic performances, helped to swell the funds, which, including entrance fees, amounted to \$9,000, clear of expenses." He says truly "it was a grand success."

A fête similar in all respects was held on the evenings of the 28th and 29th December 1888, the pecuniary results of which are not yet reported.

Our object in referring to these fêtes for the support of a Medical Missionary Hospital is to notice the fact that theatrical performances were one of the attractive features on each occasion, and also that the programme embraced a bar for the sale of intoxicating liquors. In the official Report quoted from above, reference to the "bar" is omitted, but newspaper reports show that it was one

of the most popular and best patronized of the entertainments. The *China Mail*, speaking of the last evening, says, the "grill-room and the bar were crowded during the whole evening."

It is not stated who dispensed the liquors, but as missionary ladies and gentlemen presided at some of the stalls, and took in money for a missionary institution, what objection could there be to a missionary attending to a "bar," where no doubt the highest profits would be realized.

If our opinion were asked, we would use very strong terms in condemning the use of theatrical performances and the sale of intoxicating liquors as a means of sustaining a benevolent work so noble and so sacred as that of medical missions. We however content ourselves with a statement of facts for the consideration of the Directors of Missionary Societies, and with placing on record a most earnest protest, in the name of medical missions, in the name of humanity, in the name of sanitary science, and in the name of Christianity, against theatrical performances, and the sale of intoxicating beverages, as a means of supporting any work associated with, or auxiliary to the propagation of our holy religion among the heathen.

J. G. K.

LIST OF MEDICAL MISSIONARIES IN CHINA, COREA AND SIAM.

The following is a corrected list of Medical Missionaries. Owing to the difficulty of obtaining definite information, it is far from being a complete list. We shall be much obliged to anyone who will send us additions and corrections. In default of any better method of indicating the Lady Physicians, we have attached an asterisk (*) to the names of unmarried ladies, and an obelisk (†) to those of married ladies. The Missions are arranged according to the dates of their commencing work in China, under their different nationalities of Great Britain and the United States of America.

GREAT BRITAIN.

LONDON MISSIONARY SOCIETY, 1807.

KING, L. A. †	Tientsin	1877
GILLISON, T.	Hankow	1882
PRICHARD, E. T.	Peking	1886
McFARLANE, S. S.	Chi Chow	1887
ROBERTS, F. C.	Tientsin	1887
FAHMY, AHMED	Amoy	1887
SMITH, G. P.	Tientsin	1888

CHURCH MISSIONARY SOCIETY, 1844.

TAYLOR, VON S.	Hokning-fu	1878
MAIN, DUNCAN	Hangchow	1882
HORDER, E.	Pakhoi	1884
HICKIE, HERBERT	"	1887
RIGG, JOHN	Fu Ning	1888

ENGLISH BAPTIST MISSION.

WATSON, J. R.	Ching Chow-fu	1885
WATSON, A. R. (†)	"	1885

ENGLISH PRESBYTERIAN MISSION, 1847.

ANDERSON, P.	Taiwan-fu	1878
LYALL, A.	Swatow	1879
GRANT, D.	Chinchew	1880
MACLEISH, A. L., Rev.	Amoy	1881
RIDDEL, W.	Ng-kang-phu	1881
McPHUN, J. F.	"	1883

COUSLAND, P. B.	Swatow	1883
LANG, JOHN C. R.	Tai-wan-fu	1885
HOWIE, JAS.	Amoy	1888
RUSSELL, GAVIN	Tai-wan-fu	1888

WESLEYAN MISSION, 1852.

WENYON, C., Rev.	Fatshan	1881
MCDONALD, R., Rev.	"	1884
MORLEY, ARTHUR	Hankow	1886
HODGE, SYDNEY R., Rev.	"	1887

METHODIST NEW CONNEXION, 1860.

AITKEN, W. K.	Kaiping	1884
SHRUBSHALL, W. W.	North China	1888

CHINA INLAND MISSION, 1865.

DOUTHWAITE, A. WM.	Chefoo	1874
CAMERON, J.	"	1875
PRUEN, W. L.	Takutang	1880
EDWARDS, E. H.	Taiyuen-fu	1882
WILSON, W.	Hanchung	1882
PARRY, H.	Ganking	1884
STEWART, J. C.	Taiyuen-fu	1886
RANDLE, HORACE	Chefoo	

UNITED PRESBYTERIAN CHURCH, SCOTLAND, 1865.

WESTWATER, A. MCD.	Newchwang	1881
CHRISTIE, D.	Mookden	1882

CANADIAN PRESBYTERIAN MISSION, 1888.

SMITH, J. F.	Honan	1888
MCCLURE, W.	"	1888

UNITED STATES OF AMERICA.

AM. BOARD COM. FOR. MISSIONS, 1830.

PORTER, H. D.	Pang Chia	1872
WHITNEY, H. T.	Shaown	1877
PECK, A. P.	Pang Chia	1880
MURDOCK, V. C.*	Kalgan	1881
PERKINS, L. E. †	Tientsin	1882
OSBORNE, D. E.	Taiku	1884
WOODHULL, K. C. *	Foochow	1884

MERRITT, C. P. W.	Paoting-fu	1885
INGRAM, J. H.	Tung Chow	1887

AMERICAN BAPTIST MISSIONARY UNION, 1834.

BARCHET, S. P.	Ningpo	1868
DANIELS, C. H. *	Swatow	1878

AMERICAN PROTESTANT EPISCOPAL MISSION, 1835.

BOONE, H. W.	Shanghai	1880
DEAS, W. A.	Wuchang	1881
HASLEP, M. *	"	1888
MATHEWS, PERCEY	Shanghai	1888

AMERICAN PRESBYTERIAN MISSION NORTH, 1838.

HAPPER, A. P., Rev.	Canton	1844
KEER, J. G.	"	1854
ATTERBURY, B. C.	Peking	1879
HUNTER, S. A., Rev.	Chefoo	1879
THOMSON, J. C., Rev.	Yuen Kong	1881
NILES, M. *	Canton	1882
NEAL, J. B.	Tengchow-fu	1883
ALLEN, H. N.	Seoul (Corea)	1883
FULTON, H. *	Kwai Ping	1884
SWAN, J.	Canton	1885
COLTMAN, ROBT.	Chinan-fu	1885
MCCANDLISS, H. M.	Hoihow	1885
HERRON, J. W.	Seoul (Corea)	1885
HAYS, J. H.	Bangkok (Siam)	1886
THOMPSON, J.	Bankok (Siam)	1886
CAREY, A. M.	Chengmai (Siam)	1886
BUNKER, D. A. †	Seoul (Corea)	1886
TAYLOR, GEO. YARDLEY	Peking	1887
SMITH, DRIESBACK	"	1887

AMERICAN REFORMED MISSION.

KING, Y. MAY *	Amoy	1887
OTTE, J.	"	1888

METHODIST EPISCOPAL MISSION, 1847.

HOAG, L. IL.	Chinkiang	1872
CREWS, G. IL.	Chungking	1882
COREY, C. A. *	Foochow	1884
BEEBE, R. C.	Nankin	1884
GLOSS, A. D. *	Tientsin	1885
HOPKINS, N. S.	Tsunhua	1886
PRAY, S. *	Foochow	1886
STUART, G. A.	Nankin	1886
SCRANTON, W. B.	Seoul (Corea)	1886

CARLTON, M. E. *	Foochow	1887
CURTIS	Peking	1887
GREGORY, J. J.	Foochow	1889

SEVENTH DAY BAPTIST, 1847.

SWINNEY, E. F.	Shanghai	1883
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AMERICAN BAPTIST SOUTH, 1847.

GRAVES, R. H., Rev.	Canton	1856
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METHODIST EPISCOPAL SOUTH, 1848.

PARK, W. H.	Soochow	1882
PHILIPS, M. M. *	"	1884

WOMAN'S UNION MISSION, 1859.

REIFSNYDER, E.	Shanghai	1883
GALE, M.	"	1887

AMERICAN BIBLE SOCIETY, 1876.

GULICK, L. H., Rev.	Shanghai	1876
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FOREIGN CHRISTIAN MISSIONARY SOCIETY, 1886.

MACKLIN, W. E.	Nankin	1886
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MEDICAL MISSIONARY SOCIETY, 1885.

LUSCHER, L. W.	Formosa	1885
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HOSPITAL REPORTS.

The following extracts from the report of The Pekin Hospital, under the care of Dr. E. T. PRITCHARD, will show that the work of this old London Mission Hospital is carried on with the same success as in former years. We note that the work among women is large and successful, and that a class of Medical Students are being trained and educated through the medium of the Chinese language. We have been compelled, by the results of our experience, to the belief, that for years to come it will be best to teach medicine to the Chinese in their own language. "The total number of visits paid by patients to the Dispensary during the year was rather over 20,000, and

that the number of new cases coming under observation was about 9,000. In-patients admitted, inclusive of opium-smokers, 270. 158 visits were recorded as having been made to patients in their own homes." During the year several patients have become members of the Church.

SECOND ANNUAL REPORT OF THE PHILANDER SMITH MEMORIAL HOSPITAL,
NANKING, CENTRAL CHINA
MISSION, M.E. CHURCH.

This report is very encouraging; it shows increasing friendliness on the part of prominent officials. Six converts joined the mission from the hospital. The number of

out-patients was 9,889, of in-patients was 211. A Medical School has been formed under Drs. BEEBE, STUART and HOAG. Miss E. BULTER takes charge of the training of nurses. This successful advance in so important a centre as Nankin is very gratifying. Under the intelligent care of Dr. BEEBE and his able coadjutors we look for much good work.

THE HOSPITAL FOR WOMEN AT SOOCHOW.

The 3rd of March 1887 the dispensary work was opened, and kept open until the 27th of July.

During these months about 1,000 patients were treated, 9 in-patients admitted, about 1,474 prescriptions filled; and during the year 107 office patients registered, and 188 calls made.

Three times a week the native pastor preached to the women. On the remaining days my teacher read to them a lesson from the Scriptures, and daily there were two women there to instruct them while I was prescribing. Since December 1886, I have had the same druggist, one of the medical students from Dr. PARK's school; he fills all of the prescriptions and makes up the easier preparations.

In him, as in several of the other students, I have been fully convinced of the feasibility of giving educated Chinese medical teaching.

It is an element destined to play no unimportant part. During the year of 1886-87 I gave three lectures a week to the students and one quiz on *Materia Medica*. The percentage of two only fell below 80 at the closing examination in June. Having long looked forward to the establishment of this hospital for women, I write somewhat at length, feeling that the buildings that we now have afford very comfortable accommodations for the work we shall immediately have on hand.

We have built upon the lot adjoining the Soochow Hospital, and lying to the East of it. The pavilion style was decided upon as best calculated to allow of satisfactory separation of the sick, and to secure good ventilation. The buildings are of brick, plastered inside and out, and connected by open corridors. They are finished neatly inside with high ceilings and special ventilating pipes.

The woodwork is of the best Chinese, red-wood and camphor-wood, and the floors of foreign pine,—varnished with the commonly-used Chinese varnish.

The dispensary building contains a large waiting-room, two consulting-rooms, a drug-room, store-rooms and closets.

To the north of this building are the Medical and Surgical wards in two separate pavilions, each containing a bath-room and a room for special cases. Within an easy reach of the surgical ward is the operating-room, separate from the other buildings, well lighted from above and from the north and from each side.

The buildings so far described are single-storied, raised three feet from the ground, with good ventilation underneath and the ground beaten down with a cement of sand and lime. There is but one two-story building on the lot—the home of my foreign assistant, Mrs. CAMPBELL.

There are four other cheaper buildings in the compound for the Chinese connected with the work, for service-rooms, storage, etc.

The Hospital is well supplied with foreign beds, bedding, and a considerable amount of materials for flannel clothing, etc., and surgical instruments and appliances on hand or expected by the next order to the value of \$400.

Including the land, buildings and equipment, the institution is valued at about \$10,000.

MILDRED M. PHILIPS,

A YEAR'S MEDICAL WORK IN TUNGCHOWFU.

By JAS. B. NEAL, M.D.

During 1888, the fourth year of continuous medical work in Tungchowfu, 55 miles from Chefoo, the Dispensary has been kept open regularly every day, except during the first three months of the year, when it was open only on alternate days.

The attendance has been much the same as in former years—small during the cold weather and somewhat larger during the summer—averaging about thirteen cases a day, the total number of visits of out-patients being for the year 3,283, of which 1,396 were new cases. The year upon the whole was one of unusually good health both among foreigners and natives, especially as regards the usual summer complaints, which are ordinarily so troublesome during August and September. Though there was a severe epidemic of cholera in Chefoo and in many places in the interior of Shantung which proved very fatal, there was little here, not more than half-a-dozen cases being brought to my attention, while the ordinary record of diarrheas and dysenteries was much decreased as compared with 1887.

There has been no dangerous illness among the foreigners of our community, and no deaths among the natives who are connected with us in our work.

The number of hospital patients, though not large, has considerably increased as compared with former years, the whole number being 61, of whom forty-three have been cured, eleven improved, and four unimproved, there having been three deaths during the year. I have been much gratified during this year's work to find an increasing willingness among in-patients to remain in hospital long enough to receive some benefit, instead of becoming discouraged after a few days, if no very evident improvement took place.

Most of them have seemed just as anxious to get well as we have been to help them, which is not always the case, and have been willing to spend time and take pains to effect a cure. The only innovation worthy of note in our practice, has been the use of lavage in treating diseases of the stomach. The treatment consists in daily washing out of the stomach by means of a stomach tube and funnel, with a dilute solution of bicarbonate of soda, so as to thoroughly cleanse the mucous membrane from accumulations of mucus and combat hyperacidity. It is remarkable how quickly a patient becomes accustomed to the passage of the stomach tube, and will swallow it down with almost no difficulty, even coming and asking that it be used, after learning the relief which follows its application.

One case of severe catarrh of the stomach, who on admission was much reduced and suffered greatly from attacks of pain, was almost entirely relieved and left the Dispensary, a fleshy man, after a few weeks of daily washing of his stomach and careful regulation of his diet. Another patient, who suffered from an excessive hyperacidity, was much relieved, and never failed to have a paroxysm of pain cut short by the use of either the dilute soda solution or by lavage with simple tepid water. The treatment however failed to cure him, while another case of cancer of the stomach could scarcely be said to have been benefited at all, though the pain which he complained of was lessened by the washings.

This method of treatment, though a little burdensome at first, owing to the necessity of regulating the temperature of the water to about 100° F., and the care required in passing the stomach tube, soon becomes a matter of routine which any ordinary assistant can carry out. The quantity of water used was usually about three pints, having dissolved in it three drachms of bicarbonate of sodium, though this quantity, of one drachm to each pint of water, was occasionally increased and often diminished, while the Journal from which I learned the method, recommended the use in certain cases of Carbolic Acid, Boric Acid, etc., when an antifermentative effect instead of an antacid was desired.

There have been no evidences of any marked religious interest on the part of the patients during the year. They all say the doctrine which we teach is excellent, and some aver that they believe it, but when we look for signs of a real understanding and acceptance of the Gospel they are entirely wanting. The people in this part of Shantung seem to be altogether devoid of any religious element in their character. In some other parts of Shantung, the people, or at least the women, appear to think about higher things and many of them belong to sects whose object it is to seek for eternal life, but here in the Shantung Promontory no such spirit exists, the people being all as worldly-minded and as absolutely indifferent to the claims of anything beyond this world as it is possible for them to be. The very occasional case of a man who does grasp the idea of sin and the need of a Saviour therefrom, is like water to a thirsty soul in this barren land.

MEDICAL TEACHING.

The teaching of the medical class of five students has been regularly and systematically carried on during the year. In the early part of the summer, at the end of their first year and a half of study, they passed their first examinations in Anatomy, Physiology and Chemistry, and during the autumn they had recitations twice a day, four days of the week, and once on Wednesday in Dr. KERR's *Practice of Medicine* and in Surgery, passing an examination in the latter at the end of the year.

They are going on this year to pursue the study of Practice in conjunction with clinical examination of patients, including percussion and auscultation, having also regular recitations in books on Inflammation, Syphilis, Skin Diseases, etc., and listening to lectures on Therapeutics, Obstetrics, etc. Though they are bound by their contracts to stay only three years, they have all declared themselves willing to remain through the summer of 1890, which will give them a course of three years and a half, and allow them more time to devote to the clinical study of medicine and surgery. Below will be found a short statistical table showing the work for the year in Dispensary and Hospital.

STATISTICS FOR 1888.

New Out-patients	...	...	1,396
Old	„	...	1,887
Hospital	„	...	61
Total No. of Patients	...	...	3,344

Diseases of New Patients.

General Diseases	...	...	189
Surgical	„	...	209
Respiratory Tract	...	...	96
Alimentary	„	...	433
Eye and Ear...	...	...	85
Skin Diseases	...	...	265
Miscellaneous	...	...	119
			1,396

List of Operations.

Amputation of Fore-arm	...	...	1
„ „ Thumb...	...	...	1
„ „ Penis	...	...	1
Tumors excised	...	...	7
Fistula in Ano	...	...	2
Circumcision	...	...	1
Needle-and-fish Spine cut out...	...	...	2
Shoulder set	...	...	1
Ascites tapped...	...	...	3
Abscesses and Boils lanced	...	...	14
Necrosed Bone...	...	...	1
Teeth pulled	...	...	55

SOCIETY PROCEEDINGS.

At the Meeting of the Shanghai Medical Missionary Association held at St. Luke's Hospital on the 12th inst., Dr. GULICK was duly elected President for the ensuing year, Dr. BOONE was elected Vice-President and Dr. MATHEWS Secretary and Treasurer for the same period.

A Meeting of the Shanghai Medical Missionary Association took place on the afternoon of the 12th inst.

After the meeting had been opened by prayer, the minutes of the previous meeting were read by the Secretary and confirmed. Dr. MATHEWS was requested to read his paper on Malaria, and in connection with the remarks he advanced upon the new antipyretics, he stated that he was unwilling to adhere to the somewhat prevailing tendency of subordinating Quinine to either of them, and promised later on to give the meeting the results of his experiments with Phenacetin and Picrate of Ammonia.

Dr. BOONE remarked that it was of the utmost importance that we, living in this malarious China, should recognize the part malarial fever plays in eye affections, so he would supplement Dr. MATHEWS' paper by the following Notes on Malarial Poisoning and Eye Diseases. BULL gives histories of seventeen cases of intra-ocular hemorrhage that showed some connection with severe *Malarial Poisoning*. The vessels ruptured during the febrile stage of the disease. Constitutional treatment is alone effective. JAVAL, from the presence of interstitial keratitis in patients suffering from intermittent fever, was able to tell from what part of the country his patients came, knowing the malarial districts. Quinine was the effectual remedy. LANDOLT agrees with JAVAL, and PONCET goes even further by stating that he has seen in Africa, hemorrhages and choroiditis result from the same cause. SEDAN gives the result of thirteen years' experience in Africa, during which time he had 34 cases of interstitial keratitis, 19 monolateral and 12 bilateral. In only 11 of the 34 was syphilis the cause, and in 27 the malarial origin was demonstrated by the quick response to antifebrile and tonic treatment.—*Annual of Medical Sciences*.

Dr. HENRY DICKSON BRUNS, of New Orleans, reports, in the *Medical Record*, July 14th, the details of six cases of malarial retinal hemorrhage. All were middle-aged males, the victims of chronic malarial poisoning, enlarged spleens, etc. Both eyes were effected in five of the cases, the hemorrhages were usually multiple; there were slight retinitis and papillitis; the vision was impaired according to the location of the hemorrhage. The tendency is toward recovery as the general malarial affection is conquered, and the absorption of extravasations follows the characteristic course. The hemorrhages are ascribed to no special morbid process, but simply to the poverty of the blood induced by the malarial poison.

The six cases of VAN NULLINGEN (*Centralblatt*, January) present us with a different aspect of the inquiry. It speaks of a peculiar form of Keratitis, associated with intermittent fever. The peculiarity of this form of Keratitis consists in a superficial erosion of the temporal border of the cornea, or more infrequently as a fungus like erosion at some other point of the periphery. "At first sight it seems like a case of mechanical injury in which the epithelium has been broken off from a limited portion of the cornea. The clear area soon passes over into a cloudy ulcer, gradually enlarging toward the pupillary

space, and penetrating the deeper layers of the cornea, but not perforating the last. From the infiltrated spot radiate stellate parenchymatous prolongations into the adjacent portions of the cornea. The iris and uveal tract are not implicated. In the beginning there is local pain and a feeling as of a foreign body in the eye, with lachrymation and photophobia. There is little pericorneal injection. In the second stage, of extension and deepening of the ulcer, there is ciliary neuralgia. Whilst the symptoms are inconstant, the general character of the Keratitis must be reckoned with the asthenic and torpid forms. Even pain may not exist. The most constant and the most important symptom is the anæsthesia of the cornea, even in the unaffected parts, and sometimes persisting for a long time after convalescence and cicatrization. Paresis of the externus and inferior recti muscles was observed in one case. Vascularization of the corneal border may arise after the ulcer has existed for a few weeks. Healing is slow, and the prognosis as to vision is grave, owing to corneal cicatrices that are formed. Even the clearer parts are traversed by stellate rays of opacities, thus spoiling the hope of successful iridectomies. The author has no doubt of the malarial origin of the affection, but as to the direct cause of the desquamative process and the anæsthesia no explanation is advanced, except the analogy of the decubitus of spinal lesions or other exhaustive ailments."

The reviewers would suggest, as a possible cause, a peripheral neuritis of the corneal trophic and sensitive filaments. The systemic disturbances and impoverished nutrition of the tissues would predispose to such a morbid process, and exposure to cold—the frequent cause of such peripheral neurites as underlie herpes zoster, facial paralysis, etc.—might directly bring on the condition above described. This assumption of a local neural inflammation, which in reality is beautifully described in the last case, and which tallies so nearly with the descriptions by ARLT of herpes zoster, ophthalmicus and herpes facialis, is rendered more plausible when the two forms of disease are carefully compared.

A vote of thanks being tendered both Doctors BOONE and MATHEWS the meeting then adjourned.

PERCEY MATHEWS, M.D., *Secty.*



PROGRESS OF MEDICAL SCIENCE.

PRACTICAL HINTS ABOUT CHILDREN.

Dr. JACOBI gives in the *Archives of Pediatrics* the following suggestive hints about the management of children:—"Always teach a nurse that a child cannot swallow as long as the spoon is between the teeth; that it is advisable to depress the tongue a brief moment, and withdraw the spoon at once, and that now and then a momentary compression of the nose is a good adjuvant. Syrup will turn sour in warm weather, glycerine and saccharine keep. The taste of quinine is corrected by coffee, chocolate and 'elixir simplex.' Powders must be thoroughly moistened; unless they be so, the powder adhering to the fauces is apt to produce vomiting. Inunctions require a clean surface, and are best made where the epidermis is thin and the net of lymphducts very extensive on the inner aspect of the forearm and the thigh. Babies, after having taken opiates for some time, demand larger, and sometimes quite large doses to yield a sufficient effect. Febrifuges and cardiac tonics, such as quinia, antipyrin, digitalis, strophanthus, sparteine, convallaria, etc., are tolerated and demanded by infants and children in larger doses than the ages of the patients would appear to justify. Mercurials affect the gums very much less in young than in advanced age. The rectum of the young is straight, the sacrum but little concave, the sphincter ani feeble, and self-control gets developed but gradually; for these reasons a rectal injection is either allowed to flow out or is vehemently expelled. Therefore one which is expected to be retained must not irritate. The blandest and mildest is a solution of six or seven parts of chloride of sodium in a thousand parts of water, which serves as a good

vehicle for medicine unless incompatible with the latter. The injection must be made while the child is lying on its side (preferably the left side) not on the belly over the lap of the nurse, for in this position the space inside the narrow infantile pelvis is reduced almost to nothing. In many cases of intense intestinal catarrh, large and hot (104° to 108° F.) enemata will relieve the irritability of the bowels and contribute to recovery. They must be repeated several times daily. When there are many stools, and these complicated with tenesmus, an injection, tepid or hot, must or may be made after every defæcation, and will speedily relieve the tenesmus."

SALT IN MILK FOR CHILDREN.

Dr. A. JACOBI (*Arch. of Ped.*) says that the addition of sodium chloride prevents the solid coagulation of milk by either rennet or gastric juice. The cow's milk ought never to be given without table salt, and the latter ought to be added to woman's milk when it behaves like cow's milk in regard to solid curdling and consequent indigestibility. Habitual constipation of children is influenced beneficially, since not only is the food made more digestible, but the alimentary secretions, both serous and glandular, are made more effective by its presence.—*Practice.*

INTESTINAL DISEASES OF INFANCY AND CHILDHOOD.

By A. JACOBI, M.D. Detroit, Mich.:
GEORGE S. DAVIS. 1887.

This book is quite an exception to the usual unprofitable results of writing on the special diseases of children. The author shows that in the first year of life the

stomach and the intestines are the sources of a high death-rate amounting to forty per cent., whereas in the second year only nine per cent., are due to digestive troubles. It is clear that hygienic rules for infants concern the digestive organs mainly, and hence an account of the physiology, hygiene, pathology, and therapeutics of the infant's alimentary canal forms an unusually interesting and instructive volume. An experience of more than a third of a century justifies the author in attempting to diminish infant mortality by insisting on normal alimentation during the first few months of life; he points out that almost one-half of the infants who die before the end of the first year do so before they are one month old, and that the mortality diminishes with every day of advancing life. The following quotation will serve to give an illustration of the style and practical value of the book:—

"How should children be fed, from a spoon, from a cup, or from a nursing bottle?

Most certainly from the latter. It alone gives the certainty that food has a suitable consistency and contains no lumpy ingredient. The accurate removal of lumps and a uniform consistency of the food is analogous, in the child, to mastication in the adult; at least, this is approximately true. The prejudice which is prevalent with mothers and many nurses, that thick nourishment is necessarily nutritious, must be met and opposed energetically. Proper digestion demands, above all, a gradual introduction of the food into the stomach. The use of the bottle is so much the more indicated, as well as desirable, in that when a slight degree of weariness comes on after its use, the infant is naturally obliged to cease nursing."

We refrain from further quotation. The book is one to read; abstracts from it are inadequate. It contains the ripe experience of a good observer, and is likely to be of great value to those who consult it.

R. S. S., M.D.

CLINICAL REPORTS ON SULPHONAL.

Three months ago a quantity of Sulphonal was presented to St. Luke's Hospital, Shanghai, with the request that I would give it a fair trial in the wards of that institution. As this remedy is but slightly soluble in water, it was given in suspension with syrup and mucilage of gum acacia, the usual dose being twenty grains. Sulphonal was tried on 17 patients suffering from insomnia, while undergoing treatment for the relief of the opium habit. In every case from 5 to 8 hours of sleep were obtained; in two of the cases, the dose was raised to 30 grains before a good effect was produced. In one case of insomnia from prolonged and exhausting mental exertion the effects of 20-grain doses were excellent. In two cases of violent cough, bronchitic asthma, Sulphonal induced sleep although it did not relieve the cough.

As Sulphonal is a valuable addition to our list of remedies, I append some of the latest reports of the use of this drug.

H. W. BOONE, M.D.,

CLINICAL REPORT ON SULPHONAL.

By WILLIAM H. FLINT, M.D.,

Attending Physician to the Presbyterian Hospital, New York.

Thirty-three cases, dose usually given at bed time. In order to prevent mental impressions, either of a favourable or of an adverse nature, from influencing the results, the patients have not been informed of the nature of the drug or of its expected action.

While the cases reported above are too few to justify any generalizations regarding the exact indications and effects of Sulphonal, they yet offer some interesting corroborative evidence regarding its great hypnotic value, already established by earlier observations. The general conclusion which may be drawn from these observations is that Sulphonal, even in single doses of 20 or 30 grains, is a safe and, in the main, reliable hypnotic, free from unpleasant concomitant effects, and usually from all undesirable sequelæ. The single objectionable after-effect witnessed by the writer has been moderate somnolence on the morning following the administration of the remedy. In none of the cases has there been the slightest derangement of appetite or digestion nor have the circulation and respiration been appreciably affected at the time of awaking. The cutaneous and renal secretions have neither been increased nor diminished; nausea, vomiting, and constipation have not followed the use of the drug. Several of the cases seem to show that an increase of the original dose is often not required, and that, after a certain time, natural sleep being restored, the Sulphonal may be discontinued. This is the only light thrown by the writer's cases upon the important question as to the possibility of engendering a Sulphonal habit or of prejudicially affecting the organism by the continued use of Sulphonal. The doctrines that Sulphonal is of exceptional value in insomnia occasioned by debility, neurasthenia, and mental perturbation, and that it has no appreciable anodyne properties, receive support from the history of several of these cases. Thus, in Case 30, the happiest results followed the use of the drug in a destitute, homeless, neurasthenic, and exhausted patient. The same was true in Cases 11 and 25, of hysteria. In Cases 1, 7, 19, 26, 28, and 29, the pain of acute rheumatism, of pelvic peritonitis, of chronic rheumatism, of sciatica, and of dysentery was not sufficiently controlled by the remedy to permit of quiet sleep. On the other hand, the pain of splenitis (Case 16), of cerebral gumma (Case 20), of pharyngitis (Case 21), and of alcoholic gastritis (Case 27), was not of sufficient violence to prevent the patients from sleeping under the influence of Sulphonal. The effect of Sulphonal was particularly fortunate in the cases of those patients who had previously been addicted to the use of opium and of other

hypnotic drugs, or were suffering from insomnia, due to the withdrawal of these remedies. These results are illustrated by Cases, 4, 22, and 32. In Cases 4, 12, 13, and 14, of insomnia due to the dyspnoea of cardiac and Bright's disease, Sulphonal was powerless to produce sleep, and morphine was alone perfectly adequate to meet the indications. In Case 4, of cardiac dyspnoea, the hydrate of amylene proved fairly successful. In Cases 2 and 6 insomnia was occasioned by the harassing cough of pulmonary tuberculosis, but, under the influence of Sulphonal, the patients slept better than usual, and although the cough continued during sleep, they were not awakened by it. Sulphonal also rendered excellent services in the insomnia of typhoid fever, as shown by Cases 5, 9, and 18.

The average length of time at which sleep ensued after the administration of the Sulphonal was about an hour.

The average duration of sleep was a little over six hours, and success attended the use of the Sulphonal in about 82 per cent. of all the trials.

The high average of successes, in a series of unselected cases, many of which were plainly unsuitable for experiment with a pure hypnotic, encourages the writer to publish this record in the hope that it may aid in hastening the general introduction of Sulphonal.

POISONING WITH SULPHONAL.

In the *Deutsche Medizinal-Zeitung* for November 26th, Dr. BORNEMANN, who has charge of an institution for the treatment of neurotic invalids, gives an account of the case of a physician, fifty-three years old, a victim to the morphine habit, to whom Sulphonal was given among various other hypnotics. On one occasion sixty grains were given shortly after nine o'clock in the evening, and thirty grains more an hour after midnight. Sleep did not follow promptly, but the patient shortly showed symptoms of muscular inco-ordination of a decided character. It took six days for the ataxia to subside entirely, and during a portion of that time there was great mental depression. The author infers that the action of Sulphonal is not confined to the cerebral cortex, for in this case the ataxia was of central origin, inasmuch as the patient's condition was the same whether his eyes were open or closed. Certainly the case should serve as a reminder that the use of Sulphonal is not wholly free from danger.

Sulphonal is clearly a hypnotic, and is to be classed with chloral and paraldehyde. It consists of small, white crystals, soluble in water. It is tasteless and odorless, and should be given in doses of from 1-3 grams (15-45 grains). Its hypnotic effect is produced, as a rule, inside of thirty minutes—rarely after an hour. The sleep produced by it lasts from six to eight hours.

Insomnia is regarded by SALGO as the indication for Sulphonal, while exaltation requires hyoscin. He did not find it superior to paraldehyde, and in many cases not as effective as chloral.

In one case of hysteria in a patient with the morphine habit, after a dose of two grams the patient fell into a sleep lasting several hours, although his dose of morphine had been reduced one half. In another case of hypochondriacal depression, two grams of Sulphonal were more effective than six grams of paraldehyde. S. observed no ill effect to follow the use of Sulphonal. Patients take it more willingly than they do paraldehyde and chloral.—*The American Practitioner and News*.—Dr. SALGO.

SULPHONAL IN INSOMNIA.

A. CRAMER (*Neurolog. Centralblatt*, 1888, 430) reports the results of 407 administrations of Sulphonal to forty-five patients with various mental disorders. 30 times there was no result; 377 times sleep lasting five or more hours was produced, usually one-quarter to one hour after the medicine had been taken. The dose varied from one to three grammes. Unpleasant secondary effects were only observed in one instance, and consisted merely in some sleepiness on the following morning. The author then instituted experiments to determine whether the drug possessed any disturbing influence on the diastasic action of saliva, and on the power of artificially prepared gastric and pancreatic secretions to digest fibrin. The results showed such power to be absent.

RABBAS (*Berliner klin. Wochenschrift*, 1888, 330) has also obtained only good results with Sulphonal in the insomnia of mental disorders. In doses of two to three grammes it acts better than either amyl hydrate or paraldehyde; and though sleep is produced by chloral more promptly, it does not last so long. He has found the remedy efficient in the worst maniacal conditions where chloral and paraldehyde had proved unavailing. Most of the twenty-seven cases to whom the medicament was given 220 times were instances of mania and melancholia.—*Am. Jour. of Med. Sciences*.

SULPHONAL IN INSOMNIA.

By E. B. DOOLITTLE, M.D.,

Jeanesville, Pa.

Having noticed the very favorable results alleged by our German colleagues with this new hypnotic, I procured a sample for trial, and have thus far given it in about thirty cases of insomnia, some simple, others accompanying acute and chronic diseases. The results were uniformly good. The dose given, with one exception, was half a drachm.

In every case but one sleep followed in about an hour, lasting from four to eight hours. In one case it had no perceptible effect, but a dose of forty-five grains afterward produced sleep of nearly six hours, and was followed by considerable languor, mental hebetude, and loss of appetite for twelve hours or more; in no other case were there any unpleasant after-effects noticed. Several of the patients had previously been taking chloral, and expressed themselves as having a more quiet and longer sleep after the Sulphonal. In a few cases which had been quite obstinate, a few doses seemed to establish the normal habit, and so far no return of the insomnia has occurred.

A dose of half a drachm taken by myself produced in about an hour heaviness of the eyes, and slight vertigo on walking, followed by a quiet sleep of eight hours. The only after-effect noticed was slight drowsiness, which disappeared in two or three hours.

Although these few cases are insufficient to be of much avail, I give them in the hope that thereby others who have suitable opportunities may give the drug a more extended trial. So far as these few cases go, they accord with previous reports, and seem to indicate that we may find in Sulphonal a valuable addition to our hypnotics, and an aid in the treatment of an affection sometimes very troublesome.

CORRESPONDENCE.

ODONTOMA.

I notice in the last number of the Journal, in Dr. KERR's report of cases treated in the Medical Missionary Society's Hospital, page 162, the statement that only nine cases of this affection have been reported. I had supposed that it is more frequent. While temporarily in charge of the Philander Smith Memorial Hospital at Nankin, I removed one of these tumors from the lower jaw of an old woman. It was attached to the root of the right second incisor, and was about the size and shape of the one represented in the cut given by Dr. KERR. I removed it by forcible extraction with a pair of tooth forceps. The irritation caused by the tumor produced

considerable deformity of the lower part of the face, which had partially disappeared the last time that I saw the patient. From its situation it was easily accessible, and therefore was extracted without much difficulty.

GEO. A. STUART, M.D.

Wuhu.

Shanghai, 12th February 1889.

To the Editor,

Medical Missionary Journal,
Shanghai.

DEAR SIR,

Among the arrivals in your Journal of December last is that of "PERCEY MATHEWS, M.R.C.S.E., M.R.C.P., London." May I beg you to insert this by way of correction:

although my Hospital work was done in England, I have no claim whatever to the diplomas indicated, and therefore the announcement did not emanate from me.

I am, dear Sir,

Faithfully yours,

PERCEY MATHEWS, M.D., LL. D.
Canada.

Nankin, February 15th, 1889.

To the Editor of the
Medical Missionary Journal.

DEAR SIR,

My dispensary, a large native Kung Kwan of twenty-four rooms, is situated in the heart of the busy part of Nankin. The front is used as a chapel and waiting-room. I go into the city three times a week, and after Scripture reading with an explanation, and prayers with the servants and patients, the dispensary is opened and the sick treated. After lunch either one of my colleagues or myself preach to a goodly chapelful of people, a number of whom listen fairly well. One interesting enquirer came last fall, and sent up a large official card with the characters on one margin *Yin Fai Kwoh tih rang lai pai*, "a Jew comes to pay his respects." I had just finished tiffin, and asked him upstairs. He was a large, fine looking, intelligent young man, and claimed that he was a military *Kü-rang* of the rank *Yuh Sy*, about equal to our colonel. He told me there were three or four thousand Jews in his city, Kai fung fu, all of eight family names, and that many were lapsing into idolatry. They are known as *Yiao king Hwei tsz*, or Mahomedans, who pull out the sinew, and are many of them well-to-do, one a *Chi Hien* another a large silk merchant. I talked to him a long time on the history of the Jews and of Christ, and gave him a set of the Scriptures. He also went down to the Chapel to hear me preach, and on taking his leave promised to come again. He came several times and met Mr. SAW and myself. We

learned from him that his father had learned of Christ in Peking, was converted, and returned to Honan to preach, but soon died. He left word with his wife to have the boy educated and sent to a foreign settlement to learn the Gospel. This is the boy grown and educated. On my taking a trip to Japan, Mr. SAW continued to instruct him, and later on baptized him on a profession of faith in Christ. He has now gone back to Honan, but hopes to come to us again shortly. We hope and pray for great things as the result of this conversion. Who knows but that God has sent those Jews to be his messengers to carry the Gospel to China. The Gospel came to the Jew first and then to the Gentile, and this order was kept by the Twelve and Paul. It might be an economy of missionary force to concentrate an effort on the Jews of Honan. They may be the Pauls and Apolloses being prepared to evangelize China from the centre to the circumference. They have some knowledge of our true God, and, having lost the conceit of nationality greatly, should readily receive the truth as it is in Christ Jesus.

Yours sincerely,

W. E. MACKLIN, M.D.

To the Editor,

China Medical Missionary Journal.

DEAR SIR,

As Dr. COLTMAN has seen fit in the December number of the Journal to state the impression which my assistant's conduct at P'ing-tu made upon him, I trust you will have the goodness to find space in the next number for Mr. LI's account of the same. Dr. COLTMAN states, "Upon arriving at the mine, we were told that a Chefoo doctor had arrived about fifteen minutes (!) ahead of us, but upon inquiry it proved to be only an assistant of a Chefoo Surgeon, and it was very fortunate for the patient we arrived so soon after this gentleman, or our patient would have succumbed to his treatment, which consisted in spreading iodoform ointment over the wounds."

LI confesses the painful fact that he reached P'ing-tu but fifteen minutes before Dr. COLTMAN. Further, as a foreign doctor from Wei-hsien was hourly expected, he did not feel inclined to touch single-handed so serious a case, hence the employment of placebo treatment to gain time. LI was then retained to nurse the wounded for about a month, and Dr. HUNTER apologised to me for keeping him so long away from his hospital duties here, as his services were invaluable. If you look at Dr. COLTMAN'S statement you will find, on the night of the 6th July, rupture of the femoral was feared, but it is not stated that it was Mr. LI who sat up all night and gave the signal to Dr. HUNTER of the rupture. When neither Dr. DOUTHWAITE nor I could leave Chefoo I sent LI, whose mental power is above that of the average foreigner, knowing he would never make a mess of the matter;

that if he failed it would be from not doing enough, never from officiousness, and enjoined him, if possible, to bring the cases to Chefoo.

Now, I would ask, which of us could practise physic if our apparent errors were to be shown up in print, not to mention the case of our necessarily nebulous pupils, who with us are helping "to widen the skirts of light," and who, though Chinese, are entitled to claim the right of professional support as much as we.

W. A. HENDERSON.

Chefoo, 22nd February 1889.

Note.—We publish the above, as requested, and are not responsible for the statements made by either party. There seems to have been an unfortunate misunderstanding.—*Editor.*

NOTES AND ITEMS.

Dr. JOHN C. THOMSON has recently arrived in Hongkong to take charge of The Alice Memorial Hospital. He is in connection with the London Missionary Society, and he is to be distinguished from Dr. JOSEPH C. THOMSON of the American Presbyterian Mission, now resident in Macao.

Dr. McCANDLISS, after many failures, has succeeded in renting a house in Kiung-chow, Hainan, which he can use for a hospital.

MARRIAGE.

January 14th, at the British Legation, Tokio, by the Rev. Archdeacon SHAW, W. E. MACKLIN, M.B.M.C.P. & S.O., to Miss DOROTHY DE LANY.

WILLIAM MCCLURE, M.D., to MARGARET A. BAIRD. Married at Canton, China, February 7th, 1889.

BIRTHS.

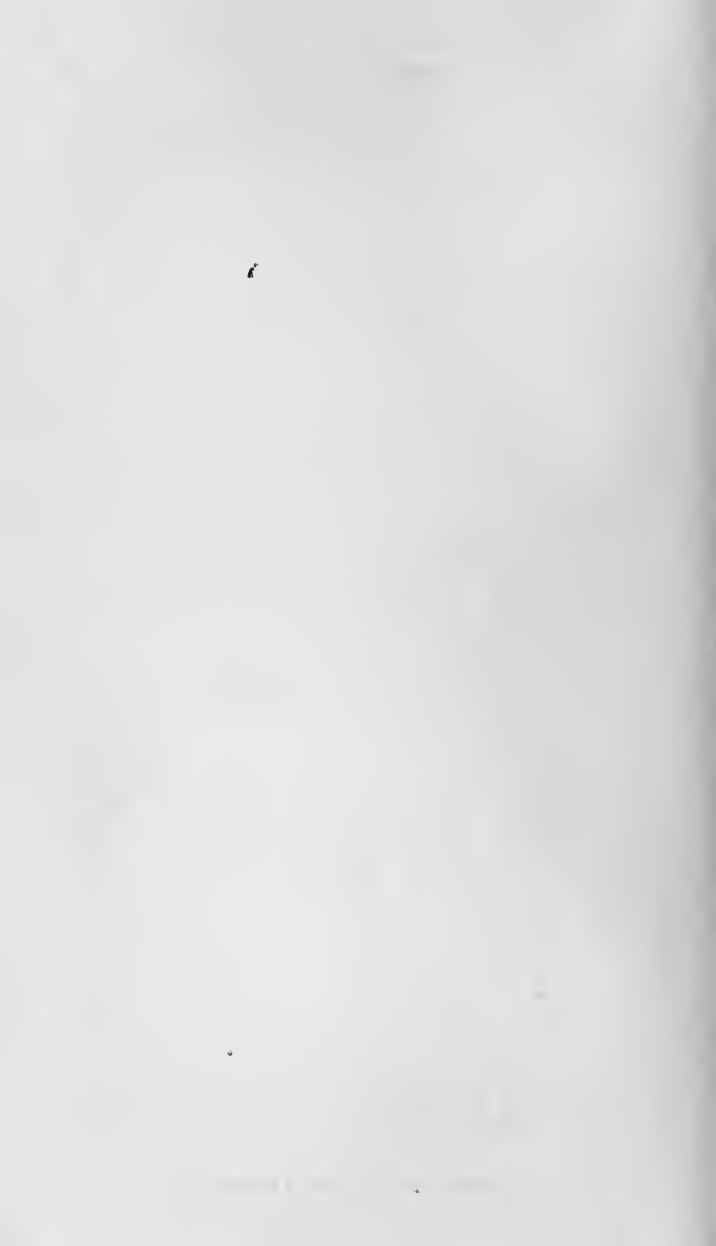
At Kobe, Japan, January 7th, 1889, the wife of Dr. W. H. PARK, Methodist Episcopal Mission South, of a daughter.

At Tseng-chow Fu, December 1st, 1888, the wife of Dr. J. R. WATSON, of a son.

ARRIVALS.

At Shanghai, December 30th, 1888, for China Inland Mission, Dr. and Mrs. RANDLE and 3 children, (returned.)

At Shanghai, February 5th, 1889, for M. E. Mission, Foochow, Dr. J. J. GREGORY and wife.



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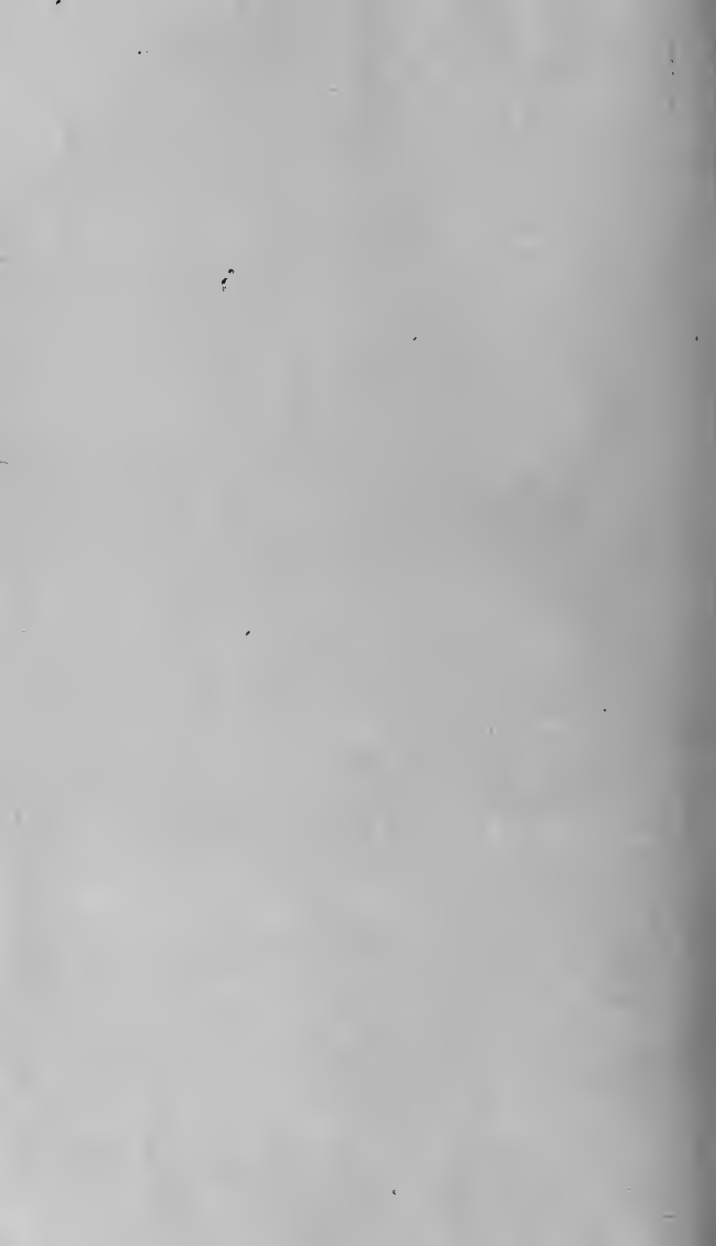
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T H E

China Medical Missionary Journal.

VOL. III.

JUNE 1889.

No. 2.

CYSTIC TUMOR OF THE ANTRUM.—OPERATION.

By J. M. SWAN.

On March 12th, Mr. TSING CHAN, aged 20, unmarried, occupation a farmer, presented himself for the removal of a growth situated on the right side of the face. It had been present for three years and was gradually increasing in size.

It involved the right superior maxillary bone (outer surface) from the insertion of the lateral incisor tooth to that of the first molar, the facial surface of the bone having been pushed outward and upward. Part of teeth were loosened, but not thrown out of line. Over a small area external to the alveolar process and at a point over the orbital surface there was distinct fluctuation. The roof of the mouth was undisturbed.

There was no history of pain having been present to any marked degree, and the man's general condition was good, though not presenting a very robust appearance.

On March 19th the case was operated on, a trochar first having been introduced at the lower point of fluctuation and about two ounces of a thin brownish serous fluid drawn off.

An incision was made extending from a point on the upper lip one inch to the right of the median line, upwards and outwards, and external to the infra-orbital foramen, thus avoiding the trunks of the infra-orbital artery and nerve, the incision being fully three inches in length. The teeth involved were extracted and the facial surface of the bone was removed with a small portion of the sack of the tumor, thus exposing the antrum, which was greatly enlarged and lined with the sack of the tumor.

•

In the posterior part of the cavity was a fully-developed tooth, corresponding in appearance to a lateral incisor, firmly inserted into that portion of the bone lying beneath the floor of the orbit, and from its length it must have reached very nearly through the floor of the orbit.

This tooth having been extracted, the entire sack was easily removed, it being but loosely adherent to the bony walls of the cavity. The sack presented a peculiar velvety appearance, was one-fourth inch in thickness and exceedingly tenacious.

The cavity was filled with absorbent lint and the incision carefully closed, an aperture being left external to the alveolar process for the purpose of dressing and the daily injection of a ten per cent solution of boracic acid.

The external incision united by first intention, and at this date, twenty-two days after operation, the cavity has almost closed; scarcely any deformity is noticed.

Remarks.—Doubt was entertained as to the correctness of the diagnosis, as the signs very strongly indicated disease of the superior maxillary, and the roof of the mouth was not in any way affected. In this case the method sometimes used of evacuating the sack and injecting a strong solution of carbolic acid or iodine, would have proved futile. The question arises, whether or not this tumor might be called a dentigerous cyst? Usually such a term is applied only to those cysts connected in some way with the normal teeth. In the above case the sack was closely adherent to the abnormal tooth, and on extraction quite a portion of the sack remained adherent to the tooth.

CANTON HOSPITAL,

Canton, China, April 10th, 1889.

OPIMUM POISONING TREATED WITH ATROPIA-SULPHATE.

By J. M. SWAN.

On April 2nd, at four o'clock p.m., I was called into the city to see a Manchu, age thirty-six years, occupation soldier, married, family consisting of a wife and three children. About three hours previous to the time I saw him, he had swallowed a quantity of opium, with the intention of committing suicide.

The amount was estimated to be about a mace and a-half of the native prepared watery extract of opium which is used in smoking.

Found respirations eight to ten per minute, pulse 80, full and strong, pupils contracted to the size of a pin-head. With considerable difficulty the patient could be roused, but not to full consciousness.

One twenty-fourth of a grain of atropia sulphate was administered hypodermically, and the stomach-pump at once introduced, and the stomach thoroughly washed out.

There was a strong odor of opium given off from the contents withdrawn from the stomach, but no opium was discovered. A dram of brandy in hot water was administered by the mouth, the hypodermic injections of atropia being continued every ten or fifteen minutes. At first the patient seemed to improve, but soon the narcosis became deeper.

As I worked to great disadvantage and with poor assistants, I had the patient placed in a sedan chair and rapidly conveyed to the hospital. This involved about twenty minutes, and when the man was brought into the hospital ward his respirations were not over three per minute, there was no radial pulse, and marked cyanosis was present. The heart sounds were distinctly audible, but feeble. One-twelfth grain atropia was immediately given hypodermically, his feet were plunged into hot water up to his knees, and artificial respiration begun. In ten minutes the atropia was repeated in the same sized dose, the foot-bath being kept as hot as it was at all safe without danger of scalding. Very shortly after the third one-twelfth grain dose of atropia had been given, the character of the respirations changed.

The inspiration became deeper, and catching or spasmodic in character, showing a marked stimulus of the respiratory muscles. The respirations were now five or six per minute; the pupils were partly dilated. Hypodermic injections of brandy were administered three or four times during the evening.

Respiration and the pulse slowly but gradually improved. The stimulated respirations were quite marked during the greater part of the night.

The next morning the patient, though still rather sleepy and depressed, was able to take some nourishment; and by ten o'clock a.m. was able to sit alone on his bed; late in the afternoon of the same day he was quite himself again.

Remarks.—There is a diversity of opinion as to the real value of belladonna or its alkaloid in cases of opium poisoning. From a physiological point of view we certainly have a strong argument in favour of its use. The best proof of its efficacy is in the practical test. In this case reported the physiological effects of the drug were well marked, but not until about three-fourths of a grain had been administered. I believe its free use saved the life of the patient. Such an opinion is not based on this case alone, but also from past experience in its use. In two

other cases in particular of opium poisoning did I attribute success to the use of atropine.

In China, where cases of opium poisoning are so frequently met with, may we not have more cases reported with the method of treatment which is followed.

CANTON HOSPITAL,

Canton, China, April 10th, 1889.

THE ANTIDOTAL TREATMENT OF THE OPIUM HABIT.

By A. P. PECK, M.A., M.D.

As no one is aware of the extent of the traffic in opium among the Chinese, or of the use of it as an intoxicant, so no one knows the extent of the trade in opium-cures among the natives, or of the demand for them by opium-users.

The writer has met with frequent instances of breaking off the opium habit by smokers both by force of will without the aid of medicine, and also in connection with the use of some native remedy prepared for the purpose. There are doubtless hundreds of such formulæ scattered through the country, jealously guarded by the owners, or only transmitted to a favored few. But besides these, there are large dealers in this line; there is at least one firm dealing in nothing but anti-opium pills, which has branches in every province of the Empire. The account of their operations reads like the record of some of our great Western houses. Their employés are numbered by hundreds, and their advertising bills foot up into a surprising number of thousands of taels. There is said to be hardly a mart in the Empire, from the small village fairs to the largest "*hais*," where their posters cannot be found.

As the business has probably grown up in response to a demand rather than creating one, we may infer that the call for relief by habitués of the pipe is real and widespread, and it is not strange that the Foreigner establishing hospitals through the country should have application for this kind of medicine also.

If we acknowledge that the demand is one to be heeded, the question arises, How shall it be met? Without questioning the utility of the opium refuge, it may fairly be said that they have their limitations. There are many who cannot go to them; the distance is often great; home cares are exacting, or more exacting is the employer who will not allow his subordinate to take the time, for opium-smoking is not like an illness which incapacitates one for business.

Again, not every missionary physician feels that he can take the time from his other duties for the exacting demands of the care of a number of such patients. And the cures which are made under these circumstances do not seem to be more permanent than others. There is nothing in it which insures that the patient will not be beguiled into taking the seductive pipe again. The advantage which it has is in the moral influence upon the patients while under treatment. This is of value, but on the whole, for the reasons indicated, the writer has given up all attempt to look personally after such patients for the mere sake of ridding them of the opium habit, and given more particular attention for some years to the preparation of medicine which should meet all the ordinary range of indications, as far as possible, and yet not be open to the objection of being sought for its own narcotic effect.

This misuse of anti-opium pills, which seems to have come under the observation of some of our brethren, has not been known personally by the writer, although frequent and close inquiry has been made. If it exists, however, it is an evil which must neutralize to some extent the good done, and should be guarded against as much as possible.

The important point, however, is to provide such a combination of remedies as shall be antidotal to the effects of opium on the system, and so prepare it for the withdrawal of the medicine subsequent to the withholding of the pipe, that no overwhelming shock may be experienced, and it is for the purpose of speaking to this point that this paper is written.

First, in the writer's opinion, the one indispensable remedy is *nux vomica*. For some twelve years or more he has come to depend upon it in the treatment of the morphine habit in America, and of the opium habit as found in China, and with increasing confidence. The physiological antagonism of strychnia to morphia is well known, but, so far as the present writer's knowledge goes, has been but little insisted upon clinically. He has heard of one or two gentlemen in China who think highly of it, and perhaps there are others; but there has certainly been a conspicuous absence of reference to this point in print as one of therapeutical importance. *Nux vomica* may be considered invaluable as a tonic after the withdrawal of opium, and an extract of the whole nut is somewhat preferable, in the writer's opinion, to the alkaloid or its salts. It has usually seemed best to incorporate a little opium. Many of the cases applying are of men in active employment in business-houses or in Yaméus, who cannot afford to be incapacitated for work, and a remedy which enables them to get rid of the insidious habit while keeping about their regular avocations is a real boon. An extreme perturbation from the entire loss of the opium effect might be dangerous in cases of great exhaustion, and sometimes does discourage a patient from persevering to the end because of the discomfort. For these reasons, what would be a small dose of opium for a person not

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habituated to it is often incorporated, so that for the opium-user the effect as an opiate is not noticeable and the stimulant effect of the small dose is obtained.

Belladonna, for its physiological antagonism to the toxic effect of opium, is also theoretically valuable in accordance with the established rules of relatively small doses to obtain this antagonism—(lethal doses of opium are not under consideration)—and also for its effect as a vaso-motor stimulant.

No apology need be made for the use of small doses of ipecac. in this combination, for its tonic action, particularly on the alimentary canal, in view of the abundant clinical teaching in regard to it.

But for the use of Phosphate of Soda, some explanation is perhaps necessary, although this powerful hepatic stimulant has long been a favourite with the writer, particularly in the treatment of intestinal derangements of children. Its use in this connection was suggested to him by other and competent observers; the hint was readily taken, however; and he believes it, even in small doses, to be a valuable adjunct in the treatment, helping to correct the glandular disturbance due to the prolonged use of opium, particularly by keeping a good supply of bile in the intestines.

Finally, the valuable digestive tonic and stimulant Piperine is worthy of attention. Those of us who have lived in malarial districts, and learned to rely on the aid which this alkaloid gives to Quinine, will be prepared to appreciate the assistance which it may give in these enfeebled cases. Perhaps its tonic action, as distinguished from the stimulant, is less generally appreciated than it should be.

The above-mentioned drugs, in varying proportions and combinations, have been used by the writer for some years, in the treatment of the opium habit, sometimes in liquid, sometimes in pill form. It is not exactly like the man's gun, which was loaded for bear if it should be a bear, and for squirrel if he saw a squirrel; but as the abuse of opium brings a pretty definite train of evils, the various indications are met to some extent at least by these antidotal drugs.

Just at present this hospital is using a compressed powder or pill made for us by Messrs. J. WYETH & Co., of Philadelphia, U.S.A. Their compressed pills and tabloids are well known on both sides of the Atlantic, and the quality and style of these anti-opium pills as put up by them merit every praise; they are absolutely inimitable by the Chinese, and bear the transportation as well as other pills. The bottles, containing one hundred each, are landed with the Chinese characters *Chi yeu ling han*. Unlike most medicines dispensed from this Mission hospital, these pills are not given away, but are uniformly sold at the rate of fifty cents per hundred. The exact formula, as written for Messrs. WYETH & BRO., is herewith given for the information of any who may choose to avail themselves of their help:

<i>Recipe</i> :—Sodii Phosphate exsiccant	...	...	...	1,000 grains.
Abstract Nux Vom.	...	...	...	650 „
Pulv. Opii	...	...	...	750 „
Triturate Ipecac.	...	...	...	150 „
Abstract Belladonnæ	...	...	...	250 „
Piperine	...	...	...	500 „

Ft pill No. 1,000.

Of these pills, from two to eight per day may be needed at first, according to the amount of opium previously consumed, to be gradually dropped one by one until both opium and medicine are stopped. Of course it is understood that the pipe is forbidden from the start. The majority of smokers are able to leave off by the use of one hundred pills or less.

The policy of thus making it easy for the unfortunate victims of the opium habit to break off, has sometimes been called in question, with the idea that they are more apt to relapse into the habit, knowing that they can get out of it again. If it be so, it is an argument in favor of the treatment, for it is the business of the therapeutist to accomplish the object he has in view in the most direct and practical way. There will be a percentage of relapses after any plan of treatment, and the question of policy should not be twisted into a question of casuistry; for, the cure of the habit, which is its own proximate object, is a question of physics. The reformation of the inebriate, our ultimate object, is a question of morals and of religion.

WILLIAMS' HOSPITAL,

P'ang Chuang, Shantung.

ACUTE PULMONARY TUBERCULOSIS.

By ROBERT COLTMAN, jr., M.D.

This disease is fortunately rare, so rare indeed as to make the diagnosis of it oftentimes a matter of some difficulty; indeed, the ordinary tuberculosis is often overlooked by physicians of considerable reputation. I remember a case I was called to see in the spring of 1883. A lady, aged 37, supposed she was suffering with dyspepsia. She complained of a pain in the left side just above the stomach. As I proceeded to examine her lungs she laughingly remarked, "Oh, I am all right there, doctor; my pain is due to dyspepsia, for which I have been treated thirteen years off and on." I however went on with my

examination, which revealed a cavity of some size. I announced consumption as my diagnosis. A few weeks later she had a severe hemorrhage, and the case went on with varying fortunes, the lady being, however, still alive when I left America in 1885. She had been in these thirteen years the patient of two medical men of good standing, and although she had, as she admitted, had slight colds at times and a constant dry, hacking cough, they had never examined her lungs. This was an instance of the slower form of the disease, but the form I wish to call attention to is very different, and although it cannot be overlooked, yet may cause a mistake in diagnosis, which is one of the most unpleasant things that can happen to the medical man, leading, as it does, to false treatment, and therefore doubtful prognosis.

FLINT makes a distinction between rapid tuberculosis and acute tuberculosis, which I think both clear and necessary. In rapid tuberculosis the disease runs its course speedily, the accumulation of the product, softening, ulceration, and the formation of cavities taking place in a few weeks. Cases of the acute variety differ in this: the tuberculous product is in the form of small, distinct, round tubercles, called from their size "miliary," which accumulate in immense numbers, and life is quickly destroyed by interference with the function of respiration, and a high degree of constitutional disturbance. In the one case you have the rapid breaking down into cavities, and in the other great constitutional excitement, overwhelming the powers of life before cavities form. In neither of the two cases I am about to relate was a post-mortem possible, and consequently my testimony will be regarded by some as doubtful, but the absence of any marked purulent or cheesy expectoration must be considered confirmative evidence.

Case I.—LI CHIN HAN, a young man of 21, of slight physique, but who had never been particularly unhealthy, was suddenly taken with a considerable hemorrhage, which yielded readily to treatment. Exploration of the chest failed to reveal any evidence of disease, though the action of both lungs was weak. Was put on tonic treatment. A week after the first hemorrhage a second occurred, followed by fever and a weak pulse of 120. No expectoration, slight hacking cough, profuse night sweats, rapid emaciation, and death in six weeks from first onset of disease.

Case II.—Mrs. C. H., age 22, American. Considered herself very strong and hearty, but of slender physique. Without any premonitory symptoms, was taken with a slight hemorrhage, saturating one handkerchief, on December 7th last. Careful physical examination next day failed to reveal any disease of the lungs; laryngoscopic examination, however, showed the larynx to be much congested. A second hemorrhage followed the next night. She was placed on tonic treatment, which apparently failed to produce any effect. Shortly after, she complained of pain below the fourth rib to the right of the sternum.

Appetite gradually failed, and fever in the form of evening exacerbations attended with much flushing of the cheeks set in. January 2nd.—Temp. showed 104°. Slight hacking cough with little or no expectoration, such as was brought up being frothy, watery mucus. Rapid loss of strength followed, and Friday, January 4th, she felt too weak to rise until after noon. Saturday 5th, she was unable to rise at all. Monday, she became slightly delirious and remained so until her decease, Thursday, at 5.30 a.m., January 10th. Bowels were constipated throughout. Urine free from albumen but showed a slight amount of sugar; respiration went up gradually to 42 per minute, pulse gradually going up and reaching just before decease to 180 per minute. Her grandfather died at age of 46 of consumption. Her mother died at 51 of diabetes complicated by a pulmonary complaint of some duration, doubtless phthisis. She had profuse sweats for about ten days preceding her decease. The treatment was supportive and symptomatic. Any treatment is useless in preventing a fatal termination, as all such cases are hopeless from the start, and our only effort must be in the direction of supporting the powers of life.

CHINANFU,

February 4, 1889.

NOTES ON CHINESE MATERIA MEDICA.—(*Continued.*)

By A. W. DOUTHWAITE, M.D.

ARSENIC.—(*Continued.*)—In addition to the varieties of this mineral given in my last paper, a very good Sulphuret of Arsenic may be obtained from the drug stores. It is known as *Hung Sing Shih* (紅信石), and, like the Yellow Arsenic, may be used for the production of Arsenious Acid by sublimation.

Arsenic Trisulphide, or "Orpiment" (雌黃 *Ts'z-hwang*) is used by the native doctors, chiefly for external application, and variously compounded arsenical powders, with remarkably fancy names, are in general use for the destruction of morbid growths, in much the same way that "Arsenical Pastes" were employed in Europe a few years ago.

HYDRARGYRUM, 水銀 *Shui-yin*, also known as 汞 *Hung*, is obtainable in any of the large towns in China; so our brethren who reside far inland are not dependent on the outside world for their supplies of Hyd.-c. Creta., Ung. Hydrarg., Blue Pill, and other mercurial preparations, which they can compound from native material.

HYDRARGYRI PERCHLORIDUM or "Corrosive Sublimate" 白降丹 *Peh-kiang-tan*, is manufactured by native chemists, but is too impure for medicinal use. I have used it for making the Yellow Oxide (HgO) by the following process:—Dissolve the soluble part of *Peh-kiang-tan* in boiling water; when cool, decant or filter off the clear liquid, to which add strong solution of caustic soda (鹼 *Kien*), until the yellow precipitate which is thrown down ceases to form. Then filter off the liquid, and wash the Oxide by pouring water upon it several times while on the filtering-paper, then dry it by exposure to the air, or by gentle heat. I have found an ointment composed of this Yellow Oxide of Mercury 2 grains, to Vaseline 3, invaluable in the treatment of the chronic corneal ulcers, and chronic blepharitis, so common among the Chinese. Liquor Ammonia added to the solution of *Peh-kiang-tan*, produces the "White Precipitate" or Hydrargyri Ammoniatum.

HYDRARGYRI SUBCHLORIDUM (水銀粉 *Shui-yin-fen*, or 輕粉 *Ch'ing-fen*) is usually met with in light, silvery scales, somewhat resembling silver mica, with which it is probably adulterated. Owing to its being so freely adulterated, it cannot be relied on as a therapeutic agent, but by subliming it in a glass or iron retort, conveying the fumes through a bamboo or glass tube into a tin box, a pure Calomel will be found adhering to the sides of the latter. A simple and easily made still and condenser of this kind will be found very useful for purifying such Chinese drugs as Calomel, Camphor, Sulphur, etc.

HYDRARGYRI OXIDUM RUBRUM (三仙丹 *San-sin-tan*), as sold in the shops, is a tolerably pure drug, but a similar preparation, known as 紅升藥 *Hung-sing-yioh*, contains a variable amount of Arsenic, which fact should be borne in mind when prescribing it in any form. This, and the Hydrargyri Nitratis (黃升藥 *Hwang-sing-yioh*) may often be used with benefit as an application to syphilitic sores.

(To be continued.)

MEDICAL MISSION WORK IN EASTERN AGRICULTURAL MONGOLIA.

By Rev. JAS. GILMOUR.

In the spring of 1886, in a market-town in Mongolia, I was troubled at the daily sight of a crowd of people, many of them suffering from diseases which I knew I could heal, if they would only let me, with the medicines I had lying in a couple of boxes in my inn. The crowd was partly Mongol and partly Chinese. I could communicate with them in both languages, and was on friendly terms with all. They would consult me about their diseases, but, with only a very few exceptions, they one and all declined my invitation to come to my inn for medicines. One man even who brought his wife to have me treat her eyes, had me do so on the public street. Praying and thinking over the matter, God led me to see how to bridge over the gulf that separated the crowds of sufferers from me. They would not come to me, I must go to them. A Mohammedan medicine-seller seemed to be driving a thriving trade under a little cloth tent. I would get a cloth tent like his and try. It was with some fear and trembling that I set up my tent for the first time at a great fair, and during the first day I had very few patients, some ten or so. Happily, a Bible Colporteur was in the same town with his books, and as people would not have drugs they had books and preaching. The second day was little better at first; but later on, a countryman who had got medicine from me sometime before turned up at my stand, related to the crowd how my medicine had cured his wife, and went on to consult about some other patients' diseases. That started the thing. Others took courage and came forward, and from that day to this, wherever my stand has been seen, thither, as a rule, flocked the patients. I move about from place to place, attending local fairs, temple gatherings, and visiting large trading centres. I have stores of books and medicines at three places, and hitherto my means of locomotion has been at most times a donkey, which has carried my two medicine-boxes, the tent, books, and general belongings of my helper and myself.

The manner in which I have been received is great cause for much thankfulness. As a rule, everywhere I have been welcomed and trusted. Opposition has not been wanting; lying rumours have done their worst; medicine-sellers, who say I have ruined their trade, have combined against me; but the Lord has delivered me from them all and opened the hearts of the people to me wherever I have gone.

In seven months of 1886, I had between five and six thousand patients.

In 1887, I dispensed during nine months of the year, and had between twelve and thirteen thousand patients.

In 1888, I have had my tent out about nine months. I have kept no record of patients, but comparing the medicines used this year with the quantity used last year, I guess I must have seen nearly twenty thousand patients.

The going out on to the street seems essential to success among the people here. Times and again I have tried in-door practice, but it comes to very little. In the inn I can meet only about one-tenth of the patients I can see on the street.

The inconveniences of street dispensing are not few. The weather causes trouble. In summer the sun tries myself and my ointments, but latterly I have done something to combat the heat by putting a double roof in my tent. In winter the cold is excessive. Mild days with no wind are all right, especially when there is a good brick wall to the north; but when a wind pipes up, patients and doctor with one consent disappear. In spring, dust-storms are common, and I usually hold out on such occasions till patients fail. But Chinese and Mongols in Mongolia don't care much for dust-storms. Dust and all, patients keep coming; and I remember one day especially, in the market-place, wheu, with a good attendance, we had to keep on dispensing most of the day, though the wind was so high that it several times blew away the lids of the medicine-boxes, and the dust was so great that before we were finished, boxes, books, clothes, and faces were all one uniform colour.

Rain is a great perplexity. Not to go out on a cloudy day, when other traders go out, seems not right. To go out and be caught in the rain is not well, especially when, travelling as we do, changes of clothes are scarce. To bundle up our tent when a shower begins: sometimes we are hardly at our inn before the weather clears again. Sometimes too a seemingly slight shower becomes a tropical pour. One day, erring on the bold side, we did not take down our tent when rain came, and in a few minutes we were standing in the verandah of a shop, looking at a broad flood sweeping through our tent, with masses of straw and drift matter gathering against the tent-poles.

Another inconvenience is that good stands in good places are hard to get. Most of them are claimed by permanent traders, and to these we have to give way. Latterly, however, this has not troubled us much; we are so well known and so well received, that if we are anywhere within sight at all we do not want for patients and hearers. Drunken men and evil-minded men who oppose us have from time to time caused us some trouble, but through God's good hand upon us, we have always got over such difficulties without once claiming mandarin protection. Many of the Yamen people came as patients, and a word or two from such men in our favour goes a long way towards keeping bad men from molesting us.

One trouble is how to manage a crowd of patients in a market-place. This one shouts, that one is in a hurry, another is drunk and won't wait his turn,

another is a Yamên man and claims precedence of all; two or three women stand about painfully on their small feet, wiping the tears from their suffering eyes; still another man has waited "half-a-day" and has a long way to his home; the patient being dealt with, after getting his own medicine, wants something else for his mother, or his father, or his wife, or child, or for each and all of them, in fact there seems no getting to the end of his list. It is a happy thing if in the midst of such a pressing crowd a gust of wind does not pull up one of the two pins that hold the tent and throw the whole thing about our heads. To keep things in order, I have two forms; one is for myself and my assistant, the other is for the patients. I insist on every patient being seated as he describes his case. This prevents him and the spectators from pressing forward and crowding, as they are apt to do; and only one man is allowed to speak at a time. "First come first served" is the order of the day. As one patient is dismissed from the inner end of the form, each of the two or three seated and waiting their turn moves inward one place, and a new man takes the vacant seat at the outer end of the form. Ordinary countrymen submit gracefully to this arrangement. Proud Confucianists and Yamên men have to be made exceptions, and treated when they appear; and I always insist on giving the precedence to any female patients who may come. In this way something like order can be kept, and dispensing for ordinary cases can be very rapidly performed. On good days the number of patients may range from one to two hundred, and on one very extraordinary, very long summer day, at a great fair, in a great centre, when the dispensing went on from shortly after sunrise till about sunset, I think some four or five hundred cases were attended to.

Many cures are reported, some of them too extraordinary almost for belief. But the Chinese and Mongols believe them, and most, if not all, our patients are attracted by cases of cure they have known or heard of. Through God's good care over us we have had no serious accident. Great care has to be exercised in giving away medicines. Tell the patient as you like how and when to take the medicine, it is often of no use. He meets some friend who tells him to take it in some other way, and he does so. To take medicines in double doses is a common practice. Chinese doses of medicine are very large. A patient looking at the comparatively small dose of foreign medicine, thinks the foreigner has been mean, and given too small a quantity, and so he takes two doses at once. In most cases he quickly repents when he finds the small doses produce a great effect; but I have known men take four doses together and suffer no harm. One mother administered internally, in one dose, a quantity of ointment given her for external application! Next day she brought the infant in her arms, seemingly none the worse for the treatment. The mother was disappointed that the child was no better.

This inattention to directions has to be taken into account in dispensing, and makes it impossible to give some medicines, which if taken in large doses would do harm.

The amount of actual physical suffering relieved has been great. I am very thankful to God it has been so. But the dispensing of medicines is only a means to an end. The medicines are used as a means to create friendly points of contact with the people, and enable me to convey to them the knowledge of the Gospel. Keeping this object in view, our tent flies in front a sign of six characters: "The Gospel Hall of the Religion of Jesus;" at the one end is another sign: "God the Heavenly Father;" at the opposite end is: "Jesus the Saviour." Every dose of medicine, if it is a powder, is first put up in an inner wrapper containing some Gospel truth, printed in sixty-four characters; and as most cases require two or more doses, these again are parcelled up in a larger paper, containing some prominent truth, printed in two hundred characters. In this way Gospel truth is scattered far and wide over the district. Patients, too, are encouraged to buy books, but our main endeavour is to combine preaching and conversation with dispensing.

Some days we are entirely defeated as to preaching.

On reaching our stand we find a man already waiting for us. He is a countryman, anxious to get away home to cultivate his field, and asks for some medicine first. As soon as we get our tent up and open our boxes we attend to him, and by the time he is attended to, others come equally importunate and equally in a hurry. By the time they are attended to, others come, and so the thing may, and sometimes does, go on without break for a whole day. This sometimes happens, but not often. Even when the day begins so, a break mostly occurs, and then we can stand up and preach. As a rule, though we try to begin the day by speaking—and it is pleasant to find how long a crowd of patients and spectators will listen when things go well—sometimes things go excellently, and we have all the opportunity for preaching we desire.

Sometimes interruptions are the order of the day. The ideal order of things would be that I should have a preaching colleague, to go on to the street with me. Taking up his stand close to my tent, he would seldom lack listeners while I attended to the medicines. I have as yet not been able to find a Chinaman to do this permanently. The numbers who have listened to the Gospel have been great. In 1886, from a daily record kept, my guess was that the audiences amounted to over twenty-three thousand, in 1887 to over thirty-two thousand. That many of these carried away some intelligent impression of the truth is evident from what I have overheard people in the streets and fields saying of me when they deemed I was beyond earshot. The main facts and doctrines of Christianity have been stated and understood far and wide over a large extent of country, and in each of the three centres to which I most frequently resort, a few Chinese have believed and professed Christ.

What is now wanted for the full development of the system and reaping of the sowing, is a surgeon, settled at some point as head-quarters, and two or three men to be associated with me in the work of evangelisation. Of the surgeon there is a near prospect, but of the other colleagues I have heard nothing as yet.

One problem has been solved—how to get at the Chinese to doctor them. The thing that now occupies my attention is how to get at the Chinese to save them. The daily sight of crowds of men who need above all things the Gospel which I have to give them, oppresses me. I see no reason in the order of things why the inhabitants of this district should not make the same rush for the Gospel which they have made for the medicines. The dispensing of medicines has established friendly communications between us, and made them trust me to a certain extent. Is it too much to hope that the shrewd Chinaman will see that the doctrine I bring him is as much superior to the native doctrines as my drugs are to the native medicines? Where is the hitch? Is it that the Chinaman's spiritual perception is duller than his material perception? The hindrance can hardly be apathy, for in this district there are a number of sects which flourish, one of which, at least, seems, as far as I can learn particulars, to hold out only benefits in the next life. That sect seems to be well patronised. Why should not Christianity be equally well sought after? It cannot be merely that it is introduced by Foreigners. Foreign things a Chinaman takes to eagerly when he is convinced that they are better than his own. If the Chinaman could be convinced that salvation is true, all the characteristics of his life and nation would impel him towards Christianity. The trouble is, he does not believe salvation to be real, and he does not feel his need of it. Two things we have got to do. Convince the Chinaman that God's offer we bring him is of a real thing, and secondly, that it is of a thing he needs. This done, China will soon be Christianised.

WE have got to do it; not quite that. Except God do it, it will never be done. When we and our endeavours are such that God can use us, and He puts forth this power, the thing will soon be done. The mission-field of to-day perhaps stands in so much need of nothing as an increase of prayer and an increase of faith. With these two things we can definitely expect both that we should come more fully into the lines of God's working, and that the eyes of the Chinaman's heart should be opened. With this all will be right.

WORMS.

By Rev. JAS. GILMOUR.

One thing that has amazed me is the extent to which worms are present in the stomach and intestines of the inhabitants of eastern agricultural Mongolia. The Chinese do not use water-closets; pigs act as scavengers, but seem to refuse worms; and a foreigner living among the natives is struck by the quantity of worms passed in the ordinary course of nature.

In beginning practice among this people, I used to be puzzled by men giving descriptions of diseases which I could refer to no class of disease with which I had become familiar in Peking and other parts of North China. The symptoms were at times most complicated and the suffering great. After a while the thing began to dawn upon me that possibly worms might be at the bottom of some of these cases on which the patients had spent much money, taking courses of medicine prescribed by native doctors. A few experiments brought back some of the subjects of these cases open-mouthed with surprise at the quantity of worms discharged, though they had previously assured me there were no worms in the case. Every boy and girl seems to be infested with these parasites. Nearly every woman has from time to time dire attacks of pain brought on from no other cause; and men tell me tales of worms crawling up their throats. Looking around I am amazed to find how extensive is the trade in anthelmintic bon-bons. Every grocer's shop seems to have them, and nearly every peddler, selling odds and ends throughout the country, has a bottle or two in his store. Whence comes this universal plague? Is it the same all over China? I have not noticed it so much in the hospitals of Peking and Tientsin,—what makes the difference? For other places in China I cannot say, but out here in eastern agricultural Mongolia the style of eating generally lays the inhabitants open to taking into their systems all manner of germs. Dishes and chop-sticks, after being used are put away wet, and not cleaned before being again used. The climate is very dry and windy, and blows about dust continually, except on the very few days when rain falls. Food cooked and eaten warm is all right, and can hardly, between the pot and the bowl, catch germs, but at almost every meal food left over from former meals is also eaten, and this often without being re-cooked. Dry foods, such as cakes, scones, and bread in its many forms, are allowed to stand about uncovered, ready receptacles for the conveyance of germs to the mouth. In addition there is a form of diet here in summer called *shi fan*, namely, grain boiled, then passed through cold water, set aside and eaten sooner or later as needed. Standing about for half-a-day uncovered, or only partially covered, this one article of diet alone seems sufficient for the conveyance of any quantity of germs to the intestines. Then again, Chinese are hopelessly

dirty in their cooking arrangements. In their homes they seem not to know the rudiments of cleanliness, and out-of-door cooking is even worse. At temple fairs, porridges and breads are cooked in uncovered pots, low down near the ground, close to bustling pathways, where the dust of the earth, impregnated with all manner of things, is stirred up by the feet and garments of passers-by, and floated into the pots and cups and on to the cakes of the numerous petty traders. And all this food is eaten down, germs and all! The wonder is not that worms are generated, but that the high mortality of China is not even higher than it is. Fairs and temples usually happen in any one place only once a year, and can hardly account for the sowing of germs in the populace generally; but there is one place where the thing goes on all the year round—the market-place of Ch'ao Yang. There is a cheap food market, where things are really cheap, and there the cooking is done low down near the ground on the side of a bustling street, hardly ever free from dust, and that dust contains elements contributed from all manner of things, sewage included. Yet the food looks all right, tastes good, and is sold and eaten in large quantities, the customers being to a great extent countrymen come to the town to trade. From this as a centre it would be difficult to say to what extent disease is sown broadcast over the surrounding country. Perhaps, though, *the* most prolific source of germs is to be found in the quantities of onions, turnips, carrots, vegetables generally, melons, and fruit eaten raw. Little or no care is taken to wash or wipe many of these fruits and vegetables, and pears especially, which abound here, have a kind of sticky exudation which seems peculiarly fitted to catch and retain any minute particles which may come near. Washing of roots even when done is not done well, the natives seeming to have an idea that it is healthy to take a little earth in with the root. When such things are borne in mind it seems less wonderful that people here are troubled with internal parasites.

Santonine works wonders. The Chinese here are in the habit of saying that everyone has worms, but they are surprised at the large results of small doses of medicine. So much surprised are they that they have originated a rumour to the effect that Santonine causes worms, and are stout in upholding the falsehood. In support of their theory they declare that the truth of their report may be tested by putting Santonine in a cup with some blood, leaving it in a warm place, and in a little while worms will appear. So much for eastern agricultural Mongolia. But does not the same thing hold good for other parts of China, the great ports included? May it not be so that foreign doctors may be incredulous, or overlook the plague of worms among the Chinese, and be apt to ascribe the symptoms to other causes? I wonder. A strange story reaches me of a foreign lady who died in an open port of China of a disease which either defied or puzzled the doctors, or both, to such an extent that a post-mortem examination was held, in which it was found that worms were present in

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great numbers where their presence had not been suspected. I have the story only by hearsay, and can hardly believe it. I surely must have been misinformed, but there have come under my notice numerous cases of prolonged and serious suffering in Chinese, where radical cures have been effected by anthelmintics in cases where worms were not suspected, and where the patients considered themselves insulted by the insinuation that their trouble was worms.

I use an immense quantity of Santonine and misuse very little of it. My medical friends make fun of the thing, seeing that some of them with large hospital practices do not use a tithe of what I need. What I would like to know is this, is eastern agricultural Mongolia specially fruitful in worms, or is the plague of worms universal over all China? Is or is not the large sale of worm-tablets, or bon-bons, as they seem to be called, universal throughout the whole Empire? The trouble may be local. Perhaps it is. I know another part of Mongolia, far distant from this, where tape-worm seems to be nearly universal. China is a large and diverse country, and different parts of it have different products. Meantime, till more information is forthcoming on this subject, when doctors tell me laughingly that it is my ignorance of other diseases which leads me to give undue prominence to this, I retort, in the same good humour, that their learning leads them astray and sets them to treating for indigestion and heart disease patients who could be set all right by a couple of Santonine lozenges.



LARGE URINARY CALCULUS.

By ROBERT COLTMAN, jr., M.D.

The December Number of the Journal contained an article by Dr. KERR on combined lithotomy and lithotripsy, which was very interesting. His suggestion of using a drill instead of a chisel and mallet, to reduce a large stone to fragments, seems to me a good one. I think also that in event of using a drill, a forceps should be devised somewhat lighter in bulk than any of the lithotomy forceps I have seen. It should combine lightness and strength and should have a sufficiently long handle to prevent it being in the way of the person operating the drill. I have not the genius to invent either the forceps or drill, but I feel certain our friend Dr. PECK, of Páng Chuang, could devise these instruments, that would be extremely useful and convenient and do much to lessen the danger

in extracting the larger calculi. I recently operated on a man for calculus, and had considerable difficulty in crushing the stone, which was larger than a turkey's egg; not because of the hardness of the stone, but because the crusher was too bulky to readily grasp it, and had they been less bulky they would have been too weak. I am sure a strong, light pair of forceps and a drill would have rendered the operation much easier. This case was interesting, in that it opens up work in a village never before visited by Foreigners.

Case.—Man, age 25, came to the dispensary, March 4th, complaining of incontinence of urine and constant pain in bladder and groins, also exacerbations of pain in paroxysms that were all but unendurable. Wore a large pad in the front of the body to absorb the urine, which constantly dribbled away. His brother, who came with him, reported that he had on three several occasions attempted suicide, twice by poison, once by hanging.

Having no hospital and no vacant rooms on either my own or my colleague's premises, I told him I had no way to operate. They fell at my feet and begged me to come to their home, sixty li south of the city, and operate there. I agreed to this, and on the 6th left the city, taking two assistants and the necessary instruments. On the 7th at noon performed the usual lateral operation and after some difficulty succeeded in crushing the stone and extracting it all. I then washed out the bladder with a 5 per cent solution of Carbolic Acid, and gave the patient Quinia Sulph. grs. viii et Morphia Sulph. gr. $\frac{1}{4}$. Patient rested well that night. The next three days gave Quinia Sulph. gr. ii, Morph. Sulph. gr. $\frac{1}{2}$ three times daily, keeping the bowels locked. On the fifth day gave an ounce of Ol Ricini, which produced three stools. On the second day I tied a catheter in the bladder, and most of the urine passed through it. The stone, or rather fragments, weighed dry 1,305 grains, and a good deal was lost in washing out the bladder. Patient has not had a bad symptom, pulse never been above 90, and he is now nearly recovered. During my stay in the village I passed every evening talking to the villagers about our "*object*" in healing the sick, and my helper, Mr. LI, whom I left behind to watch the man, has sent to the city for more books, and reports the interest increasing.

CHINANFU,

March 19th, 1889.



A CASE OF SPORADIC SCARLET FEVER.

By SYDNEY R. HODGE, M.R.C.S., L.R.C.P.

The following case is of interest solely with reference to the source of the infection.

M. W., aged 3, foreign child, was first seen by me on Saturday, December 28th, 1888, for an eruption which her mother had noticed on her neck and trunk after her evening bath. I saw her first by lamplight and declined to give an opinion till the following morning. When then seen the child had a temperature of $104^{\circ}4$, and complained that it hurt her to swallow. There was injection of the fauces, and one gland, at the left angle of the jaw, was enlarged; the tongue was covered with a whitish fur, through which prominent red papillæ were visible—the strawberry tongue. Her back and buttocks, chiefly the former, were covered with a rash, smooth and disappearing on pressure; it consisted of a number of very dark pin-points upon a rose-colour base, the small areas of skin between the patches being quite healthy; the rash was very irritable. Beyond a slight nasal catarrh, which the other brother had had for two or three days, there were no other symptoms, no rash on forehead, no suffusion of eyes, no cough, heart and lungs normal. The child had been ailing off and on for three weeks before with some disturbance and latterly with one or two attacks of ague. Dr. GILLESON kindly saw the case with me the same afternoon, and concurred in my diagnosis of scarlet fever. The case ran a typical course of a mild attack of that disease, nothing more serious than one or two slight attacks of angina supervening the continuous rapid pulse (so marked a feature of scarlet fever) and the general and large flaky desquamation at a later stage confirmed the diagnosis.

The question as to how the child caught it has been a perplexing one with the parents. She was residing at an inland station some 180 miles from Hankow, where they are the only Foreigners. She arrived in Hankow about the commencement of December, and resided on the Wesleyan Mission compound, which is situated three miles up the native city. There had been no case of the disease upon the compound. The child was taken to the Concession on two occasions only, the last being on Christmas Day, just three days before she was taken ill. The only case of scarlet fever that has occurred amongst the foreign community since I have been in Hankow was during last autumn, soon after the outbreak in Shanghai, and that case occurred in a young child on visit from Shanghai to a family that had had the disease in Shanghai before coming up. The child was strictly isolated, the disease never spread, and after her convalescence the little patient was removed to her home down river. I do not think, under these

circumstances, that we can suspect infection from that quarter, especially as the case occurred some three months before she was taken ill.

Only two other sources of infection, to my mind, remain :—(1) That the disease was carried by letter or Christmas present from England, of which at present I have no proof; or (2) That she caught it from the Chinese amongst whom she lived. If neither of these theories can be sustained, we must fall back upon the conclusion that the disease was auto-genetic, a theory entirely heretical according text-books, but which all recent researches into animal alkaloids renders possible.

It is with regard to the second theory—of infection from the Chinese—that I would like to elicit expressions of opinion. Although I have always believed no practitioner has ever yet seen a case of scarlet fever amongst the Chinese, and that it is believed not to exist amongst them, yet I understand that the last epidemic at Shanghai threw doubt upon this conclusion. I do not know that it goes for much that the old Chinese amah in attendance, who was perfectly familiar with measles, said this was a disease the Chinese did not know. Personally, I am not inclined to attach undue weight to the fact that no foreign doctor has yet seen a case of scarlet fever amongst the Chinese. They are backward in bringing anything to the foreign doctor, and it would not be till dropsy or some other complication had intervened that the case would be brought, and then with their very vague and inaccurate way of describing an illness, the real cause might never be guessed.

The China Medical Missionary Journal.

VOL. III.

JUNE 1889.

No. 2.

IS IT AN ADVANCE?

While the Officials of the Chinese Empire are building arsenals, making cannon, and equipping a Navy, the people are moving in a different direction under pressure from Western influences. In Southern China, numerous preaching halls are opened to counteract the influence of Gospel halls, and dispensaries are established to render the dependence of the people on foreign doctors unnecessary. Girls' schools, too, are opened in Canton, near to those of our Missionary ladies, with a view of taking away the scholars and saving them from contamination by false doctrines. The motives I attribute may be only a part of those which combine to produce the results indicated, and I only suggest what may be more or less at the bottom of movements which we have seen going on around us for some fifteen or twenty years. I propose merely to give a sketch of some of the dispensaries which have been inaugurated by the Chinese for the benefit of their own people.

The Fong Pin Sho (方便所) is now in its 15th year, and by the kindness of the managers I have the Report of the 14th year (1888). It is a volume of 57 leaves, the first ten of which contain the rules and regulations and an official proclamation.

The chief object is to provide a place in which to receive homeless and friendless persons who are hopelessly ill. In a city like Canton there will be more or less of this class, and when it is known that formerly it was no uncommon thing for 200 persons to die annually in the streets, forsaken by employers or friends, and unnoticed by the street and city authorities, it is evident that a place for such people to die in was much needed.

The regulations provide as far as possible against being imposed on, and having the sick and dying left on their hands, but the statistics given below shew that a large proportion of those admitted are outcasts.

Following the rules are seven leaves giving a list of subscribers, the most of whom are officials who give five taels and under per month. The total receipts are Taels 2,236, with a balance from previous year of Taels 106. Two more leaves contain donations of medicines, bedding, clothes, etc.

Payments for all purposes amount to Taels 2,179, and the items occupy nine leaves.

Leaves 18 to 27 contain a list of 243 males and 87 females who recovered and were sent away.

Leaves 28 to 41 give the name, age, and birthplace of 469 males who died friendless. Of these, 385 were buried at the expense of OI-YUK-TONG and 84 by the Fong Pin Sho.

Leaves 42 to 46 give the names, age and birthplace of 138 females who died friendless, 49 of whom were buried by the Fong Pin Sho, and 89 by OI-YUK-TONG.

These statistics shew that of 937 admissions, 607 died, not one of whom had a friend or relative to pay for the burial.

Those who are already dead are not received, and some notice of those who die in the streets will appear in the sketch of OI-YUK-TONG.

J. G. K.

We have received a printed circular from a student who has in view medical missionary work, asking 42 questions on the medical practice and superstitious customs of heathen nations. Perhaps very few of those to whom this circular was addressed have time to answer fully the long list of questions. Information on most of the subjects, as regards China, is to be found in books, a list of which we give below, and refer to them all those who are interested in medical missionary work in this great Empire. *Middle Kingdom*.—By S. WELLS WILLIAMS, LL.D.—SCRIBNER, N.Y. *Social Life of the Chinese*.—By Rev. J. DOOLITTLE. *The Medical Missionary in China*.—B. W. LOCKHART, M.D. *Contributions to Materia Medica, etc.*—By F. PORTER SMITH.—Shanghai.—London: SCRIBNER. *Medical Missions: Their Place and Power*.—By Rev. JOHN LOWE.—London: T. FISHER UNWIN, 26, Paternoster Square. *Occasional Papers of the Edinburgh Medical Missionary Society. Addresses to Medical Students*.—BLACK, Edinburgh, 1856. *Reports of Medical Missionary Hospitals in China*.

J. G. K.

SALOL AS A REMEDY FOR ASIATIC CHOLERA.

The Reports of the Academy of Sciences of Paris for December 31st, 1888, the 28th January and the 6th February 1889, contain an account of a series of experiments conducted by M. W. LOEWENTHAL, with a view to finding some substance which would destroy, or render innocuous, the cholera bacillus, while at the same time it should be harmless to the animal or person using the remedy.

M. LOEWENTHAL first describes a series of interesting experiments with various culture fluids, and he arrives at the conclusion that fluids which contain pancreatic juice preserve the toxic action of the bacillus of cholera. After experimenting with various substances he found that the addition of Salol, even in moderate quantities, to culture fluids of his pancreatic emulsion, which were inoculated with large quantities of cholera bacilli, rendered them sterile. This occurred even with pure cultures. He then experimented on himself by taking five grammes of Salol in the morning and five more grammes of Salol at 7 p.m. of the same day. No ill effects followed the ingestion of Salol in these doses. M. LOEWENTHAL therefore proposes to give Salol in two ways: (1) As a prophylactic, by giving two grammes at meal times three times a day; (2) When a person is attacked with cholera, he suggests that, on the appearance of the first symptoms four grammes of Salol be at once administered, and that this be followed by a dose of one gramme every hour, giving twenty grammes of Salol in the 24 hours.

At the meeting of the Academy of Medicine of Paris on the 5th of February 1889, M. CORNIL, Professor of the Faculty of Medicine of Paris, read a paper on this subject. He described the researches of M. LOEWENTHAL, which were conducted in the laboratory of M. CORNIL, where numerous animals were given toxic doses of cultures of cholera bacilli, with all due precautions to render the experiments trustworthy. Three different sets of experiments were carried out with the result that those animals which received doses of Salol *after* the ingestion of toxic doses of the cholera bacilli, recovered. The other animals, with one exception, died from the effects of the like doses of the bacilli, which were administered to them at the same time and under the like precautions.

M. CORNIL remarks that although these experiments are not absolutely conclusive, yet, "The results of these last experiments of M. LOEWENTHAL are all of a nature to furnish a very strong indication for the trial of Salol for the treatment of cholera in men, and it is that trial, and that trial alone, which will allow us to decide finally if the action of Salol, so certain in the culture experiments, and so probable in the animal, is confirmed or not in man."

These experiments were carried out in the laboratory of M. CORNIL, and they have received the sanction of that renowned pathologist. As we have no remedy

upon which we can rely with confidence in the treatment of cholera, it may be well to use Salol as recommended above; there are certainly strong reasons for giving it a fair trial.

The Lancet, March 2nd, 1889, and the following number, contained "An Inquiry into the Causation of Asiatic Cholera," by NEIL MACLEOD, M.D. Edin., and WALTER J. MILLES, F.R.C.S.E. These gentlemen, living in Shanghai, instituted a series of experiments with a view of verifying the discoveries of KOCH and other observers. They were enabled to see cases of the disease in all its stages, to make some post-mortems, and also to examine the cholera discharges and the contents of the bowels. Dr. MACLEOD also conducted experiments on animals. While nothing specially new was developed, still we are indebted to these gentlemen for a most admirable résumé of the question under discussion. Their researches are a model of careful experimental study, and the profession in China are indebted to them for thus calling attention to the subject. They have furnished us with an account of the knowledge of the causation of Asiatic Cholera brought down to date. The researches conducted in the laboratory of M. CORNIL, point to a new line of treatment with a reasonable hope for success. Those interested in the subject would do well to read the articles in *The Lancet* of March 2nd and the following number, and also to read the full account of the experiments of M. LOEWENTHAL as reported in the *Comptes-rendus de l'Académie des Sciences à Paris*, No. 27, du 31 Décembre 1888, pages 1169-1172, and 28 Janvier 1889, pages 192-193, with the remarks of M. CORNIL, in *La Semaine Médical*, 1888, p. 338, et 1889, p. 11, No. 6 du 6 Février 1889.

H. W. B.

The Committee to issue a call for a Meeting of the China Medical Missionary Association, to be held at Shanghai, May 1890, beg to offer the following report. A large number of votes have been received, all in favor of holding the Meeting. Below is a list of subjects proposed, with the names of the writers who have been elected. We take this method of notifying the result of the vote, and it is earnestly requested that all those named as writers give an immediate answer to the Secretary, either accepting or declining to write the papers for which their names are down. Should any decline to write, this will give time to confer with others and obtain their consent to furnish papers for the meeting.

H. W. BOONE,
Secretary.

Subjects.	Writers.
1.—Healing in Connection with Religion, in Old Testament Times	Dr. PORTER.
1.—Chinese Materia Medica: Its Value to Medical Missionaries	Drs. THOMPSON, PARK, DOUTHWAITE,
3.—Calculus: Its Prevalence in China	„ KERR, MACLEISH.
4.—Methods of Medical Missionary Work... ..	„ CREWS, REIFSNYDER, HODGE & MAIN.
5.—Training of Medical Students, and their Prospects of Success	„ NEAL, VON S. TAYLOR, KERR, MACLEISH, PARK, WOODHULL, SWAN & ROBERTS.
6.—Preaching to Dispensary Patients	„ MACKLIN, CREWS, DOUTHWAITE.
7.—Itinerant Medical Work	„ PECK, MCFARLANE, MAIN.
8.—Medical Nomenclature	„ HUNTER, KERR, FRYER.
9.—Necessity of giving more Prominence to the Evangelistic Side of Medical Work	„ ANDERSON, BEEBE, GILLISON.
10.—Advantage of two physicians working together in each large centre	„ LYALL, GILLISON.
11.—Advantages of Co-operation in Teaching, and Uniformity in Nature and Length of Course	„ WHITNEY, MORLEY.
12.—History of Medical Missions in China	„ THOMSON.
13.—Hip-Joint Disease: Its best Treatment of Chinese Patients	„ LYALL, WHITNEY, WENYON.
14.—A Collective Investigation into the subject of Fevers in China, with reference to the so-called Typho-Malarial Fevers	„ COLTMAN, WENYON, MURDOCK.

NOTE.—Should any of the above-named members be unable to attend the meeting in 1890, they are requested to write on the subjects for which their names are down, and to forward their papers to the Secretary of the Association, Dr. M. GALE, at Shanghai. These papers can be read at the meeting and published in the report of the proceedings of the Association.

H. W. B.

HOSPITAL REPORTS.

ANNUAL REPORT OF THE CHINANFOO DISPENSARY.

Dr. ROBT. COLTMAN, junr., in his full report, writes that with small exception "the Dispensary has been open every day," and that during a short absence Cholera became epidemic both in Chinanfoo and Chefoo. Reference is made to the want of hospital accommodation, "We need a hospital badly, and almost daily have to refuse important and interesting cases;" but our prospects are not very good. Then, touching upon the spiritual aspect of the work, the Doctor says, "Daily preaching has been carried on in the street chapel, in front of the Dispensary, to audiences of varying sizes, and although the apparent results are very scanty, yet many must have heard the word of life, and time will doubtless prove the efforts in this direction to have been valuable to some poor souls. In spite of the opposition of the powerful Literati and the rumours they have circulated against us, we have steadily gained ground with the public generally, as the following figures will show."

In 1886 the attendance was 5,714; in 1887, 6,189; visits to the dispensary during 1888 were 7,221; the operations, which numbered 399, included Amputation of Forearm and Penis, Entropion 25, Tumours removed 10, Mammary Abscess 3, Nasal Polypi 1, Hare-lip 1. The Doctor again alludes to the inadequate accommodation, and hopefully looks forward to the time when his sphere of usefulness will be extended, when he has "more commodious quarters and a separate waiting-room." He refers to the success he has met with in treating ulcer of the cornea: "My plan is to drop two drops of a gr. $\frac{1}{4}$ solution of nit. of silver into the eye, giving the eye perfect repose." In the large Serpigi-

nous ulcers he rubs up iodoform with Ol Ricini and applies with camel's-hair brush once daily.

SECOND ANNUAL REPORT OF THE PHILANDER SMITH MEMORIAL HOSPITAL OF THE C.I.M. OF THE METHODIST EPISCOPAL CHURCH.

We have to acknowledge Dr. BEEBE's report. It is a work of twenty-five pages and embellished with some seven or eight very suggestive specimens of Nanking art, by way of cuts, illustrating the Hospital and various phases of the Doctor's good work. Though gotten up more for those at home "whose contributions make the work possible," it is still very acceptable to the medical reader. The Report opens by contrasting the past year with the present: "The past year's work has been exceedingly pleasant and gratifying; the number of patients has increased; they are of a better character, more confident of our measures, more considerate of instruction, and withal displaying much better behaviour."

A few deaths occurred in Hospital, "but they occasioned no trouble." The district magistrate in one case was very kind; he came to hold an inquest, but considered it unnecessary "*exonerating* us from all blame in the matter." A pleasing incident is referred to, "a merit board" is the resultant of the successful substitution of antiseptic dressings for "a paste made of incense."

Page 15 gives the statistics of Hospital work: Out-patients first visits 4,686; Following visits 5,203; in-patients, men 195, women 16; total 10,100.

Surgical Operations.

Fistula in Ano	...	...	26
Tapping	...	...	9
Skin grafting	...	...	8
Injuries	...	...	5
Nasal polypus removed	...	...	6
Polypus of ear	...	...	5
Gangrenous toes removed	...	...	5
Preputial Calculus	...	...	1
Trichyasis	...	...	4
Hare-lip	...	...	4
Tumours removed	...	...	3
Pterygium	...	...	1
Amputation at knee-joint	...	...	1
Epithelioma of penis	...	...	1
Epithelioma of lip	...	...	1

"Thus another year closes and we go forward with added faith and increased confidence, because we know that the Lord has been with us, and we believe the promise of an Abiding Comforter."

Supplementary to Dr. BEEBE'S report is one emanating from Miss BUTLER of the Society of Friends, to whose efficacy in good work, in her position of matron and nurse, the Doctor gratefully refers.

At the last Annual Meeting of the Central China Mission, Bishop FOWLER, presiding, the Hospital School work was made the Medical Department of the Nanking University, and the following Faculty appointed:—

ROBT C. BEEBE, M.D.,
Dean and Prof. Theory and Practice of
Surgery.

GEORGE A. STUART, M.D.,
Prof. Theory and Practice of Medicine.

LUCY H. HOAG, M.D.
Prof. Materia Medica and Therapeutics.

To be appointed.
Prof. of Anatomy and Physiology.

ESTHER BUTLER, (Chicago Training
School)

Prof. of Practical Hygiene and Instructor
in care of the sick,

FIRST ANNUAL REPORT OF THE MISSION
HOSPITAL AND DISPENSARY
AT CHIANG-CHIU.

London Mission Society.

Dr. FAHMY is much to be congratulated upon his first year's success in connection with the above Institution. The Doctor, speaking for himself, says: "The Hospital work is divided into two distinct, though intermingling, departments — Evangelistic and Medical. The former is of course the main object of the Institution, while the latter is the door through which we usher in these long-benighted heathen within hearing of the "Glad News" of Salvation. Services are held, in the Hospital Chapel, morning and evening; and every day the in-patients are taught to read and commit to memory passages of scripture and hymns. On out-patient days special evangelistic services are held.

The number of cases treated is as follows:—

Individual cases	...	...	3,371
Total number of consultations by out-patients (including dressing cases)	...	...	10,847
In-patients	included in the above	{	441
Female patients			643

Surgical Operations.

Present a long and varied list of 392, appended to which are notes on Amputation of Penis—HILTON'S Method; Amputation of Leg by CARDEN'S mixed method, as recommended by BRYANT; "it combines the advantages of the circular and flap without the disadvantages;" Excision of Elbow,—two cases; the single longitudinal incision was adopted, and in both cases a movable false joint resulted. Excision of Lipomatous-chondro-osteoma Cataract, 29 cases,—GRAEFKE'S Method, 5 failures. Iridectomy 9 cases; in 7 there was improvement of vision. Paracentesis Abdominis, 5 cases. 1 External Urethrotomy. The Doctor concludes by giving a complete and exhaustive summary of the diseases treated,

FOURTH AND FIFTH ANNUAL REPORT
OF THE MISSION HOSPITAL AND
DISPENSARY AT AMOY.

Presbyterian Church of England.

We regret that the little space at our command precludes the idea of doing justice to Dr. MACLEISH'S excellent report. We quote, "During 1887, the fourth year of its existence, the work of this Hospital was steadily maintained. Owing to the marked increase in the number of patients, the difficulties attending administration have been aggravated."—

The statistics for the year are as follows:—

Total number of individual patients	2,699
New patients (not treated in previous years)	2,139
Including females	521
Daily visits of out-patients for dressing	5,284
Visits to patients in their houses	294
Total number of consultations by out-patients	13,794
In-patients, including females	521
Surgical Operations	304

The only change of any moment in the methods of Christian work during the year, has been the employment of a colporteur by the Hospital. An experienced man having been selected, he was set to work in June. After spending a few weeks in the Hospital, assisting us in teaching the patients to read and repeat hymns and passages of Scripture, and in giving them religious instruction, he was furnished with a list of the names and addresses of old in-patients, in a certain district with which he was well acquainted. These he visited in their homes, using the introduction thus given him as a means of opening the door for his message. On returning to Amoy, he submitted a detailed report of his journey and of the visits he had paid. After another period of work in the wards, he was sent out to a fresh district, in course of time thus visiting patients whose acquaintance he had made in

the Hospital. I am convinced that this is a most valuable means of following up the religious work done in the wards, and one that it would amply repay us to adopt more extensively.

We cannot but call attention to one remarkable phase of the Doctor's work, and that is, the feeding of his patients. Cooked rice *ad libitum* is supplied them at 13 cash per meal, and a profit realized; for not only are the cooks' wages and kitchen expenses paid, but a "sum of upwards of \$35 handed over to the Poor Fund." If this be reduced to a small matter of arithmetic, it will be ascertained that the patient can have two good meals a day for \$9 a year.

In the interesting "Notes" Dr. MACLEISH has embodied in his report for "professional readers," reference is made to some cases of complete corneal leucoma. In one case, a disc was removed from the centre of the leucoma by means of DE WEEKER'S spring trephine and part of the atrophied iris and a membranous disc representing the lens, extracted from the opening.

Case *f* refers to the removal of a calculus composed of uricacid encrusted with phosphates, weighing 120 grains and measuring 1 in. \times $\frac{13}{16}$ in. \times $\frac{10}{16}$ in. in a boy of 9 years. The next case has reference to the lodgement of a calculous mass situated external to a dense cicatricial band crossing the rectum and some 2 in. within the anus. When broken up and extracted piecemeal, it was found to consist of some 300 grs. of concreted phosphatic crystals, some of which were large and well formed, along with masses of black earthy material. The patient and his agricultural friends in the Hospital agreed that this crystalline concretion exactly resembled those which they had sometimes found adhering to the walls of a pit, in which ordure had been long stored! Remarkable condition of multiple synovitis is then given,—both knees, ankles and wrists,—one elbow and several metacarpophalangeal joints being distended with fluid.

The case improved considerably under the use of mercurial strapping and iodide of iron. A well-marked case of aneurism of the first portion of the aortic arch, absorbing the sternum and threatening external rupture, was considered too far advanced for treatment. A case of Paget's disease of the nipple, developing into cancer, of adenoma of the breast in a man aged 25, and a case of true congenital dextrocardia, the apex-beat of the heart being about 1 in. below and a little to the outer side of the right nipple. We regret that we are compelled to compress the report for 1888 within narrow limits.

New-patients (not previously treated)...	...	...	2,070
Including Females 24 ² / ₁₀ .			501
Total number of individual patients ...	...	...	2,788
Daily visits of out-patients for dressing ...	...	...	5,807
Visits to patients in their homes ...	...	...	200

Total number of consultations by out-patients ...	15,371
In-patients, including females	468
Surgical Operations ..	269
Vaccinations... ..	60

"A steady increase from year to year in the attendance of patients" is observed. Five students were under a systematic instruction and practical training throughout the year. The methods pursued in conducting the general and religious work of the Hospital remain substantially the same. "All the students and Hospital servants heartily assisted us in the religious teaching of the patients in the wards."

It is indeed, as the Doctor remarks, highly gratifying to be able to point out that this Hospital has now for nearly three years been independent of assistance from home, and it is much to be hoped "that its reputation for self-support will be maintained."

SOCIETY REPORTS.

Since the establishment of the Wuchang and Hankow Medical Missionary Association, meetings have been held monthly with more or less regularity. For the first two years, Dr. DEAS was our Vice-President and Dr. HODGE our Secretary. In addition to the impetus which such intercourse gave to reading, and also accuracy of observation, the meetings being held at one another's houses, have partaken largely of a social nature and brought us into closer fellowship; more than one happy evening has been spent in familiar chat after the meeting has been closed. From time to time the material of our hospitals has been used for the exhibition of cases of interest and for the discussion of cases for diagnosis. We have further in circulation amongst ourselves *The London Medical Record*, *Brain*, and the *Journal of the American Sciences*, and are contemplating making additions to this small circulating library. The following statistics may be of interest and use to the readers of the *Journal* :—

Number of Meetings held	...	...	...	...	14
Number of Members	...	...	...	...	6
Average attendance	...	...	...	...	3
Corresponding Members	...	...	...	...	2

The following papers and cases have been brought forward:—"An Obscure Case of Colic," "Several Cases of Fever," "Corneal Ulceration," "A Case of Convulsions of Doubtful Diagnosis," "Affections of the Eyelids," "Retention of Urine of Twenty Days' Standing," "Some Points in Recent Surgical Literature," "Ether and Chloroform," "Artificial Anus following Hernia with Spontaneous Cure," "Imperforate Anus," "Failure to Extract Senile Cataract, subsequent Absorption of Lens and Useful Vision," "Gangrene of Scrotum," "Hydrophobia," "Cholera."

The following cures have been exhibited:—Bilateral Syphilitic Choroiditis, Syphilitic Ostitis of Tibia and Ulna, Abdominal Aortic Aneurism (for diagnosis), Abdominal Tumour (for diagnosis), Case of Absorption of Lens after failure to extract.

The fourteenth meeting of the Wuchang and Hankow Association was held at the house of Dr. GILLISON, on Wednesday, January 30, 1889.

Present:—Drs. DEAS, GILLISON, MORLEY and HODGE.

The meeting having been opened by prayer, the previous minutes were read and confirmed. This being the first meeting since the election of new officers, thanks were moved to Dr. DEAS, retiring Vice-President, and to Dr. HODGE, the retiring Secretary and Treasurer; the latter posts, vacant by the transference of Dr. HODGE to the Vice-Presidency, were accepted by Dr. GILLISON. Dr. DEAS read notes of two cases of Meningitis and one case of Peritonitis, but in the hurry of his departure for home, the notes have unfortunately not been handed in to the Secretary. In the discussion on the latter case the general opinion inclined to extension from Pson's abscess. The symptoms had been somewhat marked, and in this connexion Dr. HODGE drew attention to a valuable paper by Dr. GOODHARDT, *Lancet*, February 26, 1887, on "Masked Peritonitis." It was then pointed out that Peritonitis might occur with (1) absence of pyrexia, (2) little or no pain, (3) a soft, instead of a hard, state of the abdomen, (4) either Constipation or Diarrhoea, the latter being of grave omen. Dr. HODGE referred to a case that he saw in England, where a man apparently in good health was suddenly seized with vomiting. The vomiting continued and became somewhat feculent in character at a later stage; there was little prostration, no elevation of temperature to speak of, and a fairly painless abdomen. The case was at first diagnosed and treated as Gastritis, and it was not till later on in the case that Purulent Peritonitis was suspected and confirmed by abdominal section. Unfortunately the operator contented himself with giving exit to the pus, and

never pushed his inspection to the site of the lesion. Dr. HILTON FAGGE (*Practice of Medicine*, Vol. II., p. 117) refers to a somewhat similar case with a similar mistake made by himself. The cause of both cases was probably similar—ulceration of the vermiform appendix.

PROGRESS OF MEDICAL SCIENCE.

Dr. DERLON, (*Rev. Gén. de Clin. et de Thérap.*) asserts that if antipyrin be added to large doses of quinine, the uncomfortable effects of the latter are avoided. He gives 3 gr. of antipyrin to 5 gr. of quinine. The antipyretic effect of the quinine is increased and the symptoms of quinism do not occur. Moreover, the combination is better borne by the stomach, and it is believed that "antipyrin modifies the reflex actions starting from the mucous lining of the stomach."—*Lond. Med. Rec.*

BRONCHIAL ASTHMA.

Dr. DUNN, in the *Therapeutic Gazette*, Aug. 1888, says, that when dyspnoea is very troublesome, the hypodermic injection of $\frac{1}{4}$ to $\frac{1}{2}$ gr. of cocaine, combined with $\frac{1}{12}$ to $\frac{1}{8}$ gr. of morphine, gives instant relief.

MALARIAL URTICARIA.

"The eruption comes out at the beginning of the second, or hot, stage, and disappears during the third stage, on the advent of free sweating. It reappears with every attack; and is, like the fever, cured by quinine. The eruption comes out chiefly on the abdomen, the trunk, the limbs, and especially the anterior (extensor) surface of the upper arms and thighs. It very rarely affects the neck or face. In a first attack, and when the temperature does not exceed 104° F., the eruption is usually discrete, but in severe cases it become con-

fluent. Urticaria is also met with in other acute infectious diseases, but in none so frequently as in malaria, in which affection it appears with great regularity in the second stage." As to its prognostic importance, while some do not consider it of much value, most are inclined to view it "as an indication of a very severe and grave case, and not improbably of the pernicious form. Such cases urgently call for prompt treatment, and the most speedy remedy is the hypodermic injection of hydrochlorate or hydriodate of quinine."—*Lond. Med. Rec.*

THE PREVENTION OF SUMMER DIARRHŒA AMONG INFANTS, VIEWED IN THE LIGHT OF THE LESIONS.

By L. Emmett Holt, M.D., of New York.

"The purpose of this paper is to call attention to the fact that many of the so-called dyspeptic intestinal catarrhs of infancy, commonly looked upon as merely functional in character, produce lesions of considerable moment. These lesions are of importance, not so much in their immediate effects as in their relation to the severer forms of disease, particularly entero-colitis.

"While I have not yet accumulated sufficient statistics for publication, still enough has been learned so far to show that the figures given in most of our books are altogether too large, and that the vast majority of hand-fed infants are very greatly overfed.

"Difficulty and failure may result from this fact where every other condition for success has been attended to.

"In conclusion I would emphasize the following points :

"1. Children should not be overfed at any time, but especially not in summer.

"2. At this season, also, every dyspeptic catarrh should be attended to; many of these are promptly curable by merely clearing out the intestine and then cutting down the quantity of food.

"3. Should an intestinal catarrh, even a

very mild one, continue for two or three weeks, one may be pretty certain that he has something more than a functional disorder to deal with.

"4. Every mild catarrh should be looked upon as the possible precursor of a severe type of intestinal disease, either near or remote.

"5. In the treatment of all diarrhœal diseases it should be borne in mind that there is something more to be considered than the bacteria and the products of decomposition, viz., the anatomical changes."

CORRESPONDENCE.

To the Editor

of the Medical Missionary Journal.

SIR,

Last autumn we opened a small hospital at Teh-Ngan-Fu, Hoopen. Since then several things have perplexed my inexperience, and I should like to elicit an opinion from those who have worked out answers for themselves; to do which I will state, either for correction or approval, what seems to me the best methods.

First.—I was for some time doubtful how far it would be wise in endeavouring to teach medicine to Chinese students; but in the March Number of the Journal, just to hand, Dr. BEEBE's views are laid out so clearly that I will take it as settled for Teh-Ngan.

Second.—Ought we to consider the reputation of the Mission in undertaking cases which must have a doubtful issue? The Church and the doctor are one; the Mission's reputation is my reputation, and my reputation is the Mission's, so I will not separate the two. Now if, considering my own operative inexperience, want of proper

assistants, nurses, etc., I can still advise a man to risk his life for the chance of good, surely it becomes my duty to risk my reputation, for the rule, which knows of no exception at home, holds in China, that the medical man's first and paramount duty is to the individual patient who puts himself in his hands. By looking at this clear rule of action, we shall be saved much perplexity; whereas by casting up the chances of glory and risks of shame—for one implies the other—we are weighing distant uncertainties which our faith ought to leave with God, content to be obedient and take the step immediately before us in doing our duty to the patient. But I myself have little fear about the reputation of one who, doing his work boldly and carefully, thinks more of his patients than of his reputation, being sure that he will in the long run get the credit from the people for giving disinterested and honest advice.

The third question has perplexed me much more, What is the best way to bring our patients to the knowledge of Christ?—

for I will assume that the time of the medical missionary is all taken up by his patients. My ideas, I confess, are indefinite, but they are based chiefly upon the principle that the hospital is not a shovel to be used for filling the Church, but a free gift of the Church to sufferers; it is from the Church, and must always be given with the Church's message of peace, but it is to sufferers, and should be given, as Christ gave His gifts, with Royal bounty to all who come; and surely we are blundering, if not sinning, if we let our patients get the impression that our desire to see their names on our books is greater than our desire to see them healed. At Teh-Ngan we have a chapel in close connection with the hospital, but we do not compel the patients' attendance, or even request it, and there is no special service for them. Our desire is, as little as possible, to separate the teaching from the healing, and so every morning, before changing the dressings, and before the patients are allowed out of bed, so that there will be no distinction between those who might choose to kneel with us and those who would not, we read a short form of prayer in the wards, as much as anything that they may see how Christians begin everything with prayer. The form is suited to their ignorance. When Our Lord gave His disciples a form of prayer for all men to use at all times, He gave one which would tax nobody's faith, and which a deist might offer; so our form contains no doctrine beyond that of the existence of One God. It begins with the commandments, followed by sentences on the attributes of God, each being followed by a short response, in the form of a prayer, chiefly from the Psalms, then comes a prayer for the sick, and lastly the Lord's Prayer. It is hoped that, by repeating these simple sentences daily, the patients will carry something away with them. The rest, we think, should be taught by the bedside, soul with soul. The medical missionary's chief method, however, is not talking, but living and loving; his influence is the sacrifice of love. Love seeks for

response and does things which might seem useless, just in order to prove itself; in this way love is puffed up, inasmuch as it seeks to make itself known; and so it seems to me that the less we leave to assistants and servants—and in a mission hospital there is no routine work—and the more personal attendance we give, the greater our influence. It will take time, and to do it the hospital, I know, must be smaller than one man could attend to if he be merely an operator-prescriber and general superintendent; fewer patients but more time to each; 25 beds I take to be enough; to do it also he must live near to his patients. In both of these we are fortunate at Teh-Ngan. It is by unfailing patience and untiring love, seeing in each patient the suffering of Christ, that we set before them some idea of the power of the Love of Christ. This daily, and a very few words will discover which soil is good and which barren. Our Mission has a number of itinerant evangelists, native and foreign, and for their use a list is kept of all in-patients, that any who have shown any desire for a further knowledge of the Gospel, may be visited in their homes.

This is the chief subject which I should like to see discussed in your columns.

I had intended also enquiring as to the experience of elder missionaries about out-patients, such a small number of whom ever come to me a second time, that I frequently catch myself dropping into routine, saying, It doesn't matter much, I shall probably never see him again. Also, as to the hopefulness of opium-curing and the rules for opium-patients. But I have yet a more practical query than either of these. A hospital is the best place to teach the Chinese what cleanliness means. One of our men visited an ex-patient in his home, and the man, a scholar, telling his friends about the hospital, finished, by way of climax, with, "Why there they wash the floors." But beyond washing floors, is there any cheap and easily-washed bedding which we can give them instead of their own *peimos*?

How far can we insist upon their changing their clothing, in bathing, and in not smoking in the wards?

I suppose, too, that we must each work out our own methods; but there must be many young medical missionaries beside myself who would be glad of intents, and this is my excuse for writing you at such length.

I am, Sir,

Yours truly,

ARTHUR MORLEY.

TEH-NGAN,

April 3rd, 1889.

To the Editor, Medical Missionary Journal.

Foochow, March 14th, 1889.

Dear Dr.,

Dr. CARLTON has a very kind, efficient helper in Miss JOHNSON, a trained nurse, and her hospital is in a flourishing condition. Our hospital building in the city is progressing finely, but we may not be able to occupy it before next fall. We shall know how to appreciate it after occupying such uncomfortable quarters during these first years of hospital work. We have had some things to encourage us in the old hospital, both in regard to medical and religious work. It is a part of the daily duty of each student to teach the patients under her care. At evening prayers they recite what they have learned through the day. My sister is usually present at evening worship, and the patients, especially the children, always seem pleased to be able to repeat something. Although these hymns and Bible verses are in many cases soon forgotten after they go home, we know that the Holy Spirit can use them even years afterwards for the salvation of their souls. I wish I could write you some articles for the Journal, such as you ask for, but after my necessary work is done there seems to be little time or strength left for anything else. Perhaps the time will come when I can do more to help on the good cause of journalism.

My class of medical students are ambitious and eager to learn. I find it no easy task

to prepare daily lessons, so as to be able to help them a little in understanding their text-books. I think there is a great field in China for native medical women. The few women who are practising foreign medicine in Foochow, seem to be doing a prosperous business. I am called to obstetric cases oftener than anything else—always difficult cases, requiring surgical interference. A short time ago I was called three times in succession to cases of shoulder presentation, with descent of the arm. My next call was a case requiring craniotomy. I find the experience I gained while an interne in Prof. WINKLE'S Lying-in Hospital in Germany, of great service to me here. I hope my students will learn how, and have the courage, to manage difficult cases, some of them I am sure will.

It seems like presumption for one person to try to teach even the barest essentials in the different departments of Medicine, but it is the best we can do for our students at present. I hope the time will come when they will have better advantages.

During the three years we have received 180 patients into the hospital, and the number of new dispensary patients has been 2,950. The people of Foochow are not in a hurry to patronize a new doctor, but I hope a new hospital will prove an attraction. I have been presented with four tablets, two from in-patients and two from patients visited outside. But my most grateful patient was a young woman who in a fit of anger sought revenge by swallowing six needles. I gave her a prescription of olive oil flavored with anise, and advised a generous diet.

Judging from the joy with which she reported results of treatment, I think the whale was not more relieved when he saw Jonah safely landed upon the shore than was she when she saw the shining weapons of her revenge.

The March Number of Journal very interesting. Your "new filter" has solved a knotty question for me, as I had for a long time lost faith in those generally used.

My object in writing this letter was to send my subscription; however, since it is written, I think I will impose it upon you.

Yours truly,

X. W., M.D.

ODONTOMA.

By ROBT. S. IVY, D.D.S., Shanghai.

Two recently reported cases suggest the following:—

Odontoma, dental, exostosis, excementosis, hypercementosis, and dental osteoma are names applied to similar cases to those described and illustrated in your Journal under the title Odontoma. For a more exact name we prefer the term hypercementosis, as it serves more definitely to indicate the tissue involved. The cementum is the covering of the tooth-root, and in character closely corresponds to the bony structures, having its Haversian canals, lacunæ, bone (cement), corpuscles, etc., and of the dental tissues it is the most highly organized and forms the bond of vital union between the tooth-root and alveolus. One of the characteristics of this membrane is the power it possesses to resorb or upbuild the bony tissue by which it is surrounded. The cause of enlarged roots is the result of pathological disturbances, irritation of the pericementum by caries in one form or another being generally considered the primary one, though teeth are often seen with enlarged roots which are entirely free from decay, while, on the other hand, badly decayed teeth are frequently extracted without any such appearance. Other causes may be found in the deposit of salivary calculus or tartar, under the free margin of the gum, or the protrusion of fillings in the same position; both these, by continuous and persistent irritation of the soft tissues, will result in extracemental growth. Mechanical impact is another frequent cause of this condition; for instance, teeth which have survived some of their neighbours are required to do the duty formerly divided, consequently from excess

of function the pericementum is irritated and stimulated. Opportunities of seeing such examples are not rare in cases where teeth get so irritated and tender, though there is no trace of decay, their owners insist on having them extracted as a speedy way of getting rid of the trouble, extraction of teeth under such conditions being attended with more or less difficulty, dependent on the extent of the enlargement. In some instances, not by any means confined to the lower jaw, as is popularly believed, the enlargement is so extensive as to result in the union of roots of molars or even to involve the alveolus and the roots of adjacent teeth.

Diagnosis of hypertrophied roots is most obscure, as no trace of the enlargement is noticeable over the affected part, and the growth is so gradual in formation that unless it assumes extensive proportions there is no discomfort, and even then the enlargement causing pressure on a nerve-trunk or some of its smaller branches, the pain is reflected to some other region. An interesting case is recorded, in which a boy was treated for epilepsy for six weeks without any result. On examination of his teeth, the lower molars were found to be much decayed, but he had had no pain in them. They were, however, removed, and the roots found to be much enlarged and bulbous. During the eighteen months succeeding the removal of the teeth he had not a single fit, though for many weeks previous he had two or three per day. As there was no complication of maladies, and as the trouble immediately ceased upon removal of the teeth, there could be no doubt as to the cause of the disease.

A frequent cause of facial neuralgia is found to exist in this condition, most persistent cases being relieved by the removal of one or more teeth.

The closure of Dr. DEAS' hospital in Wuchang has thrown additional strain upon Dr. GILLISON, only partially relieved by the fact that Dr. HODGE now sees out-patients once a week at Wuchang, that Dr. HASLER

has commenced work, and that the Women's Hospital at the Wesleyan Mission is now open. Patients have come to the London Mission Hospital from four and five hundred li away, and the wards have been crowded to overflowing. It is cheering to know that all this has borne fruit and many have been added to the Church, no less than six patients being baptised, at one time, on a recent date. For this we praise the Lord!

It is opportune that at this juncture the Wesleyan Missionary Society are about to commence active operations again in their medical work. It may be well to remind our readers that this Mission was the first to commence medical work in Wuchang and Hankow. It was in May 1864 that Dr. PORTER SMITH (well known for his work on Chinese *Materia Medica*) arrived in Hankow; he very soon opened a small dispensary, and two native houses served as a temporary hospital. Subsequently Wuchang was visited on two days of the week, and a more substantial hospital erected at Hankow. The good work was carried on till 1879, being continued, after Dr. SMITH's departure, by Dr. HARDEY, and then Dr. LANGLEY.

For want of a medical missionary, the work came to a premature close in 1879, from which date till 1884 nothing was done. In that year a small dispensary was opened by one of the married ladies of the Mission, and some 2,000 patients seen during the few months she had charge of the work. In the following year a specially-trained lady was sent out by the Ladies' Society, and for over 2½ years Miss SUGDEN has had charge of the work. During this period she has seen over 13,000 out-patients, and has made over 300 visits to the homes of the people, mostly for serious obstetrical cases.

At first a room in the Girls' Day School was used as a Dispensary, but soon became too small. A small building, containing simply a waiting-hall and consulting-room, was then built, and has done good service up till the present year. The rapidly increasing num-

ber of the patients made the provision of in-patient accommodation necessary, and the need was, last year, represented to the Home Committee. With commendable zeal and promptitude, the Ladies at once set to work and very quickly raised, amongst the ladies of Methodism, a special Jubilee fund of over £1,000. Last July the building was commenced, and last December it was opened by the English Consul, C. R. F. ALLEN, Esq. The building is quite free from debt, and a sufficient sum remained over to provide all instruments, beds and other furniture. It is a substantial two-storied brick building, 80 feet long by 30 feet wide, with suitable out-offices attached. The ground-floor rooms are laid with Portland Cement, and all the doors and windows are of Singapore hard wood. On the ground-floor, besides a Dispensary, consulting, waiting and nurses' rooms, there is one large ward capable of accommodating 12 in-patients: the upper floor contains 3 small private rooms, a set of rooms for the English lady who acts as matron, quite shut off from the rest of the building and with a separate entrance, and an operating theatre and operating ward which are also in a separate passage-way. No expense has been spared to make the building and its fittings as complete as possible. Whilst the general medical care of the hospital is in Miss SUGDEN's hand, Dr. HODGE acts as her consulting and operating surgeon.

Further, part of Dr. HODGE's own hospital for men will soon be ready for opening. A large and valuable plot of land has been presented to the Society on the same main street as our chapel and right opposite the chapel-door. On this it is in contemplation to erect a hospital for some 70 or 80 patients, with operating theatre and out-patient department, on the pavilion plan. Funds will only permit at present of the erection of a small part of the scheme, of which more at another time.

S. R. H.

HANKOW.

NOTES AND ITEMS.

At the recent election of Editors for this Journal, Drs. LYALL, BOONE, ATTERBURY and HODGE were elected to serve for two years. As Dr. GULICK declined to serve any longer as Business Manager, some changes had to be made, and MESSRS. KELLY & WALSH, of Shanghai, became the Agents for the Journal. This firm will receive and attend to all Business Communications, Subscriptions, etc., while Articles intended for *The China Medical Missionary Journal* may be sent to any one of the Editors. Shanghai is, however, the place where the Journal is published, and it is more convenient and takes less time to send many communications direct to Shanghai than to let them go wandering up and down the Coast before reaching their final destination. All the proof-reading and other work of the Journal has to be done at Shanghai. It has therefore been deemed best to make the formal announcement that Dr. H. W. BOONE, Shanghai, is the Managing Editor, and that Dr. PERCY MATHEWS, F.R.G.S., has kindly consented to assume the duties of Associate Editor. All communications sent to Shanghai will receive prompt attention. All articles will be thankfully received. Communications on religious work in connection with the medical, about methods of work, medical students, their training, teaching, prospects, etc., about native remedies, how to utilize them, health resorts, mineral springs, society reports, and specially a review of series of cases with deductions as to methods of treatment. All Articles on these and many more subjects will be eagerly looked for and appreciated by the readers of the Journal.

The Right Rev. C. P. SCOTT, Bishop in North China, has applied for aid towards establishing a Medical Mission at Peking, to

the Society for Promoting Christian Knowledge. The Bishop wrote :—This is a branch of work which is *most important* in connection with missionary work in China. The people are peculiarly distrustful of us, and are very hard to move by consideration of abstract doctrine ; but they are quick to perceive the value of medical science, and very ready to avail themselves of the skill of the physician in almost all ranks of life. The resources of our mission are small, and unable to do much towards such a work without running the risk of having to discontinue other works. The Bishop's plan was to commence with one fully qualified medical man, who would go out to China and acquire the language, and open up the work. There would be no need at first of expenditure in building, but the existing building at Peking required fitting up for use as a dispensary ; and drugs and instruments would be needed. The Bishop hoped eventually to have a second medical man to extend the work. A grant of £150 a year for three years was allowed, for the equipment and general maintenance of the Mission, such grant to include the passage of the Missionary and the cost of necessary drugs and instruments.

AMERICAN DENTISTRY IN CHINA.

From a very early day American Dentists have all but monopolized the practice of their profession at the various Treaty Ports of this great Empire.

The national ingenuity in all matters of mechanical invention has never been better shown than by the numerous improvements which have been introduced into the practice of dentistry by Americans ; their skill is recognized in all parts of the civilized world.

Here, in China we have been specially fortunate. Our dentists have been men whose ability in the practice of their specialty entitled them to respect both here and at home; while the older residents can remember that the dentists have been men whose social qualities and public spirit have gained for them the regard and esteem of the community of which they have been members.

The appointment of Dr. H. MASON PERKINS as official dentist and dental surgeon in ordinary to His Excellency the Viceroy LI, at Tientsin, and also as dental surgeon to His Excellency KUNG, Taotai at Shanghai, is only a just tribute to the merits of one of our prominent dentists.

Dr. PERKINS has always remembered the needs of the poor; as dental surgeon to the Roman Catholic School, and as honorary dental surgeon to St. Luke's Hospital for the Chinese, he has rendered valuable services.

We hope that the genial doctor will long live amongst us, and that, when he does retire, he will carry with him, in addition to our regrets, sufficient *sycee* to enable him to enjoy a well-earned repose.

THE DEBT OF COMMERCE AND SCIENCE TO FOREIGN MISSIONS.

It is already evident that the controversy which has been carried on during the last two years respecting the comparative success or failure of foreign missions is ending, as all well-informed persons knew it would end, in the triumph of the advocates of missionary work. It has called forth a mass of testimony, not only from the missionaries themselves, who are everywhere enthusiastic concerning the prospects of their fields of labor, but from English viceroys, governors, and military officers, and from diplomatic ministers, consuls, and scientific and other travellers in heathen lands, the vast preponderance of which is in the highest degree cheering to the friends of missions. Simply

as one illustration of the results of missionary enterprise it may be said that in Africa, which is far from being the oldest field, there are ten American, twelve British, and thirteen Continental societies now engaged in work; with 620 stations, 710 missionaries, 7,500 native preachers, 175,000 communicants, 300,000 baptized members of churches, 226,000 pupils in schools, and 800,000 adherents. The controversy has been eminently useful to the cause of missions in compelling statements of the results attained, and in spreading the knowledge of them among Christian people, and it can be safely said that a great increase of interest has been created. There is, however, another phase of missionary results to which attention should be called. While the primary object is, of course, to bring heathen nations to a knowledge of the Gospel, the missionary has always been a pioneer of commerce, and has not infrequently rendered eminent service to the cause of science. In thousands of places commerce has had no foothold until missionary zeal had prepared the way, gradually creating the conditions of successful trade and a demand for the products of civilized nations. The measureless profits of missionary labor have been reaped by commerce in many parts of the world, which, but for these labors, would still be unvisited by the merchant ships of England, Germany, or the United States. Religious and humanitarian activity have often outstripped avarice in penetrating into unknown and barbarous lands, but when the way has been made clear and the possibilities of trade demonstrated, commerce has followed and gathered its rich harvests. It is evident, therefore, that the secondary results of missionary labor have been great, and that commerce owes a debt to missions which the largest contributions could never repay, and which is certain to grow larger with the lapse of time. Equally remarkable is the indebtedness of science to the missionaries who are now scattered over the globe. While they have translated numberless scientific works into foreign languages and everywhere established

schools which in time will create a demand for the best results of scientific investigations, their own contributions to positive science have been beyond estimate. Dr. CYRUS HAMLIN well says: "Hundreds of educated men have given accounts of observations in many lands, describing countries, climates, modes of travel, nations and races, their physical, mental, and moral characteristics, their social condition and habits, their religion, education, and government, their industries and modes of subsistence, involving a large contribution to our geographical knowledge." CARL RITTER, "the prince of geographers," confesses he could not have written his *En-kunde* without the aid of material collected and transmitted by missionaries, and there is not a text-book upon geography which does not show the results of their contributions. For our best knowledge of hundreds of the various branches of the human race we are indebted to the same source. The modern science of philology never could have attained its present importance without the knowledge of the dialects spoken among the minor tribes and supplied by missionaries. The cabinets of many of our colleges have been enriched with geological, mineralogical, and botanical specimens, and coniform inscriptions from Assyrian sources have been collected almost without number. Natural history, the science of comparative religions, medical science, and many of the arts also owe a debt to the missionaries which is scarcely ever recognized, but which is real and destined to increase as their labors are more extended. When to this is added recognition of the work they are constantly doing in extending a knowledge of all

branches of science in heathen lands, awakening that desire for education which will sooner or later place the best that Western civilization has to offer within reach of all people of the earth, it is evident that science, at least, can not afford to speak slightly of the broad work that is being done in the hope of bringing the world to the knowledge of Jesus Christ. The latter expression has come, in the process of time, to have a large meaning. It includes, not only the conversion of mankind, but the extension of commerce, the enrichment and diffusion of science, the spread of civilization, and the binding of all peoples of the earth together in universal brotherhood, with common interests and relations.—*Providence Journal*.

Dr. MACDONALD, late of the National Church of Scotland, Ichang, who left China on account of failing health, November 30, 1888, reports himself as having arrived in Melbourne on January 13th, 1889, much improved in health.

ARRIVALS.

Arrived in Hongkong, December 1888, JOHN C. THOMSON, M.D., in connection with the London Missionary Society, to have charge of the Alice Memorial Hospital. Also, in December 1889, JOHN KUHNE, M.D., in connection with Rhenish Mission, to have charge of the hospital of that Mission in Tung-kun City, 7 miles E. of Canton.

Arrived in Shanghai, April 19th, 1889, Dr. and Mrs. J. A. GREIG, C.I.M., for Manchuria.

Arrived in Shanghai, April 29th, 1889, Dr. and Mrs. YOUNG, United Presbyterian Church, Scotland, for Manchuria.



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THE

China Medical Missionary Journal.

VOL. III.

SEPTEMBER 1889.

No. 3.

MEDICAL MISSIONARY WORK IN FOOCHOW.

By H. T. WHITNEY, M.D.

Medical missionary work was first begun in Foochow in 1850, under the auspices of the Church Missionary Society, by Mr. WELTON. He began dispensary work in the city, and continued it successfully, against a strong prejudice and many obstacles, for six years, treating thousands of patients, winning the confidence and goodwill of the common people, and through his influence the right of missionaries to live within the city was admitted by the officers, "a concession which up to that time had been yielded to no other missionary." Mr. WELTON, being in feeble health, went to England in 1856, and was never able to return, but continuing with variable health for two years, his life and labours were finally terminated in 1858.

From 1856 till 1869 but little was done of a directly medical missionary character, though indirectly, as through the Community physicians, a great many Chinese received medical aid. Early in 1870, Dr. D. W. OSGOOD, and wife, of the American Board, arrived in Foochow, and took up anew the medical missionary work. In March 1870, he and Rev. C. HARTWELL made a trip to Yen Ping, 140 miles N.W. of Foochow, on the left bank of the Min river. The people there are very proud and extremely anti-foreign. But Dr. OSGOOD treated over 150 patients and performed some operations. He began his work within the city of Foochow, after this trip, where he dispensed to outsiders, and also rented a small, native building and received a few in-patients. In October

1870, he opened a second dispensary in that part of the Foochow suburbs called Ponasang. A native building was also afterward rented near Ponasang for hospital use. Dispensing was at first done on two days of each week, but later on four days each week. In the beginning of 1872 he opened a third dispensary at Hapuoka, another part of the Foochow suburbs.

His first Report, July 1st, 1872, covering over two years of preliminary work, records 6,579 patients treated, including second visits, and 267 and more operations performed.

The second Report records 7,925 patients and 122 operations. He also remarks upon the increased number of women coming to the dispensary for treatment, as a hopeful sign that prejudice is being removed. This, of course, was true to a certain extent, but lest any may get a wrong impression, it should be stated that in Foochow we have a large class of "field-women," large-footed, who work in the fields with men, bear heavy burdens, carry produce to market, go about boldly on the streets, and mix freely with the crowds, so that they would naturally come to a free dispensary. It may furthermore be stated in this connection that in later years a fair number of the better class of women, "bound-footed," annually visited our dispensaries.

His third Report records 9,321 patients and 659 operations. During the year he visited eight villages and cities, and dispensed medicines, and performed operations. Several of these places were in the N.W. part of the Province, in what is now the Shaowu field. He dispensed at Yang K'eu, on the left bank of the Min, 180 miles from Foochow. Afterward, at Tsiang-loh lien, 220 miles from Foochow, on the Tsiang-loh branch of the Min, and later at Shaowu in, on the right bank of the middle branch of the Min, 250 miles from Foochow. At each of these places he treated several hundred patients and performed quite a number of operations.

The fourth Report gives 8,253 patients and 488 operations. It is to be noted that the in-patients increased gradually from year to year, although the hospital was only a poor, native building, and not very convenient or suitable for such work, yet it was the best he could do at that time.

The fifth Report gives 5,131 patients and 300 operations. He states that the in-patients might have been more if he had had room to receive them. He attributes the less number of out-patients to the arrival of Miss Dr. TRASK, of the Methodist Episcopal Mission, who already had quite a large practice among the women and children.

The sixth Report, July 1st, 1877, gives 6,203 patients and 353 operations. Many in-patients had to be turned away, for want of room, and he had failed to secure any better place. There was an unusual amount of ague, owing to floods in the Min. The Governor established two dispensaries with four native doctors in attendance, who gave free prescriptions to all who chose to apply.

There was a large number at first, but they gradually decreased, and in a few months the work came to an end. This instance is suggestive by way of comparison. In the summer of 1876, Dr. Osgood and family took a few months' rest and paid a visit to North-China, and learned of the methods and progress of the medical missionary work there. This Report notes the real beginning of the cure of opium patients in Foochow. This subject will be noticed more particularly later on.

The seventh Report gives 7,288 patients and 418 operations. During the period covered by this Report, *i.e.*, from July 1st, 1877, to June 1st, 1878, a site for a new hospital was purchased near Ponasang, and a two-storied wood building, with eleven rooms, was erected by the end of April 1878. The eleven rooms were as follows:—seven wards for common patients, that would accommodate from eight to ten patients each, one ward for paying patients, an operating-room, and two rooms for assistants. Three rooms for cooking purposes, a bath-room, and door-keeper's lodge, were built separate from the hospital.

During the summer of 1877 there was a severe Cholera epidemic, following very high floods in the Min, in which it was estimated that ten thousand, in and about the Foochow district, died. The percentage of mortality was very high. A large number came to the dispensary for medicine, not the patients but friends of patients. Very few cholera patients have ever come for treatment.

The eighth Report, June 1st, 1878, to June 1st, 1879, gives 9,578 patients and 560 operations. The cholera epidemic of 1877 re-appeared in the summer of 1878, but was not so violent or extensive. A greater number of in-patients were treated than in any previous year.

The ninth is a decade Report, and the last one before Dr. Osgood's death. He gives 7,838 patients and 548 operations. A general survey of his ten and one-half years' work gives but a general idea of the magnitude, extent and usefulness of this work.

The total number of prescriptions recorded was 78,697, of which 51,838 were individual patients, *i.e.*, first visits. The whole number of operations recorded was 4,015. These patients included beggars, coolies, labourers, farmers, artisans, merchants, soldiers, literati, and officials, from nearly every Province in China. Men, women, and children alike shared the benefits of the hospital and dispensary.

Religious Work.—In accordance with the original idea of medical missionary work, to serve only as an auxiliary to direct religious work, it has always been the practice to hold religious services in connection with the dispensing of medicines, and in most cases also the Scriptures and other religious works have been offered for sale. In the hospital there is opportunity for more definite and

permanent religious work, as, in addition to the regular services, books can be supplied to suit individual needs, and there is opportunity for personal conversation and instruction. The benefits of such work are always much more than anyone can trace, and often in unsuspected lines. Thus, a missionary could hardly expect to go and rent a chapel, and carry on religious work in any particular village simply because one or more of those villagers had once received medical treatment from some foreign physician, or that a foreign sportsman should be allowed to escape injury in the country, because a foreigner had once dispensed medicine in that region. But the Chinese often reason differently from others. The number of conversions resulting both directly and indirectly have been somewhat numerous, though we have no data for the exact number. The seed sown has gone out in all directions, so that only a small part of the fruit has been gathered by the sower. However, Dr. Osgood had the satisfaction of seeing quite a number of conversions, as the result of his labours, and since his death, the number has been increased from the seed he had sown.

Medical Instruction.—The work of the medical missionary is also many-sided. It is always necessary to employ native young men to help the physician, and care is always taken to obtain young men who have some natural talent, for such work. And, aside from the large amount of clinical experience afforded them, it is also of the first importance to instruct them in the principles of medicine. To do this with any degree of thoroughness requires much time. Four days each week, during six months of the year, has been the ordinary time given to study. The clinical instruction has been given on dispensing days, and nearly every day at the hospital, both in the wards and the operating-room. In former years there were but very few text-books to aid in giving instruction. Dr. DUDGEON'S *Anatomical Atlas* was used, with HOBSON'S works, at first, till Dr. KERR began to prepare a series of works on different sections of medicine, and Dr. OSGOOD translated GRAY'S *Anatomy* into Chinese, ready for use in 1881. By this time we had a fair vocabulary, and text-books enough to arrange a very respectable course of study for native students. Quite a number of students received partial instruction with Dr. Osgood, and two completed their course. The "skeleton" was of great service in lieu of dis-section and text-books.

Literary Work.—Dr. Osgood, in connection with his other duties, prepared two small tracts, one to use in connection with sabbath worship in the hospital, and the other, "Prayer," containing the Lord's Prayer, Decalogue, Apostles' Creed, etc. This last has had a very wide sale, and has been of great service to help the heathen to get at the fundamentals of the Christian religion, and so prepare the way for the Bible and other books. During the last three years of his life, he spent his available time in translating GRAY'S *Anatomy* for the use of Chinese medical students. This was perhaps the most important work of his life as a

medical missionary, as it is a standard work in English, and will probably become such in Chinese. One edition has already been sold out and a second is now in the press.

Drugs and Instruments.—One of the incidental benefits of medical missionary work is the displacing of native, by the introduction of foreign, medicines and instruments. When we consider the present state of Chinese Practice, the vile, disgusting, and worthless nature of many of their remedies, and the few rude apologies which they use for instruments, the disparity becomes very apparent, and the great superiority of the one over the other fully appreciated. At first the natives were afraid to use foreign medicines, but in a few years, after thousands of their number had been treated, and they had learned the value of some foreign remedies, their fears were overcome, and the call for particular drugs began. Quinine, iodine, carbolic acid, santonine, bromide and iodide of potash, castor oil, cathartic pills, sulphate of zinc, tincture of iron, cod liver oil, chloral hydrate, tincture of catechu, and a few others, were the first in special favour. A formula, prepared by Dr. Osgood, containing medicines for colic, diarrhoea and dysentery, and called "*K'ü-fung*," has been very popular with the Chinese here, and large quantities have been sold. We never made it a business to sell medicines promiscuously as a druggist would do, but only to those who had learned the proper use of these drugs, and to certain ones who were curing opium patients in and about Foochow, and also in the country from 50 to 150 miles away. These sales were small at first, but gradually increased to one, two, three, and four hundred dollars a year. In 1882 the use of foreign drugs had become so general, patent medicines were being scattered abroad, and a foreign drug-store having been opened in the settlement, we availed ourselves of a good opportunity and turned over the sale of medicines to a trusty native, who had graduated from the hospital.

Trusses were early introduced, and being found of practical value, the large amount of hernia called out a considerable sale. By degrees also surgical instruments of various kinds were in demand, as the natives learned how to use them. This business was also committed to Dr. Chuang, in connection with the sale of foreign medicines. Foreign drugs are so much more powerful than native that many accidents might naturally be expected, but as far as we have ever known, but comparatively few fatal accidents have happened. The danger is with our poisons, especially morphine. One or two cases have been reported: one death occurred by an over-dose, and in the other, morphine was mistaken for quinine. We wish to record in this connection that we never sanctioned the sale of opium or morphine, but the natives, knowing there was "money in it," and risking the "destruction in it," have purchased it, through other sources, in enormous quantities, and the evil has been very great in connection with the religious work.

Support.—The funds to pay the general expenses of the hospital and dispensary work have been generously contributed, to a large extent, by the numerous friends of the work in the Foreign community of Foochow. These have been supplemented by an annual contribution, in later years, from some fifteen of the higher officials, some natives in the tea trade, and compradores in the Foreign hong.

In a subsequent article we will complete the history of the medical missionary work in Foochow carried on by the American Board, leaving the C.M.S. medical work of recent years, and the work among women in connection with the M.E.M., to be written, if at all, by those more familiar with the details of their work.

A DEATH FROM CHLOROFORM.

By ALEXANDER LYALL, M.B., C.M.

There is an old saying, almost a superstition, that when one begins to congratulate himself on his good luck, then misfortune comes. So it has happened to me. I had read with much interest various papers and discussions on the subject of anæsthesia in surgery, which have been appearing in the medical journals of the past few months, and it occurred to me that I had never come across any statement of the effects of anæsthetics on the Chinese. Towards the end of last year, when preparing statistics and material for my annual report, I jotted down a few sentences on the subject, to be embodied in my report, the gist of which was, that the Chinese seemed to be good subjects for anæsthetics, as I had never heard of death from chloroform occurring in China, and in my own practice no case had occasioned me any special anxiety. Only a few days afterwards, on the 12th of January, we had a death from chloroform. As is often the case when such unfortunate accidents occur, the operation was comparatively a trifling one, and the anæsthetic had been administered but for a short time. The patient was only 16 years of age, and the disease from which he was suffering was necrosis of the tibia. There were several sinuses over the upper third of the tibia, and, on probing, a long, thin, superficial sequester could be felt. The general health of the boy seemed to be fairly good. His heart was not examined previous to the operation. The patient was young, and there was nothing to excite suspicion of cardiac mischief. Moreover, cardiac affections are relatively rare in this part of China. Dr. HENRY LAYNE assisted me during the operation. A Chinese assistant administered the chloroform. The boy went quickly under the influence of the anæsthetic, and

the operation was proceeded with at once. An incision was made through the sinuses, and the sequester was divided into two pieces by means of the chisel and hammer, and removed. Some carious bone was then detected and was gouged out. All this took only a few minutes to perform, possibly ten or fifteen minutes. Chloroform was now stopped. The sinuses, which had not been included in the incision, were now probed, and one was found to lead to carious bone on the opposite side of the tibia to where the sequester was lying. We decided to cut down and scrape away this carious bone also. The sinus was enlarged, the finger inserted to investigate into the condition of the bone, and as we were beginning to use the gouge, the alarm was given. The boy's face was pale. He made one feeble gasp and then ceased to breathe. I at once resorted to NELATON's method of complete inversion of the body. When this failed to restore the breathing, artificial respiration was employed, ether injected, and various other expedients used, but all proved of no avail. The Chinese assistant stated that he ceased to give chloroform after the first stage of the operation was completed, and that on my making the second incision the patient moved and seemed to be awaking from the chloroform. He then dropped a few drops of the anæsthetic on the cloth and applied it to the face. He had his finger on the pulse, and almost immediately on re-applying the chloroform the pulse became weak and, with a flutter, suddenly stopped. The patient made one or two short gasps for breath and then the breathing ceased also. The chloroform was removed as soon as the pulse began to fail.

The cause of death was evidently heart-failure. Two questions are naturally suggested, viz., Had too much chloroform been put on the cloth? or, Did the assistant fail to realize at once the danger when he found the pulse becoming feeble? The assistant has been in the constant habit of giving chloroform for ten years or longer, and has hitherto met with no mishap, and his statement as to the quantity of chloroform put on the cloth may be relied on. Neither do I think that he had failed to realize the danger.

This, then, so far as I can learn, is the first case of death from chloroform reported in China. Dr. KERR, of Canton, has not had a case during his long career as a medical missionary. Dr. MANSON, late of Amoy and Hongkong, has been equally fortunate. Heretofore, my experience has been that Chinese patients take chloroform very well. Sometimes cases are met with which are difficult to put under, and a good quantity of the drug is required, but usually they are easily anæsthetised. The stage of excitement is, I think, less marked than in the case of Europeans, but nausea and vomiting afterwards are equally common. In India, the experience of Dr. LAWRIE is remarkable. He says, he has given or superintended the administration of chloroform 40 or 50 thousand times without having a fatal case.

MANIA FOLLOWING AN OPERATION FOR ENTROPIUM.

By ALEXANDER LYALL. M.B., C.M.

In the discussion on Anaesthetics, already alluded to, the occasional occurrence of insanity after operations was referred to by several surgeons both in England and America. The cause of the insanity was generally accredited to the effects of the anaesthetics (chloroform and ether), on the nervous centres. About two months we had a case in the Swatow Hospital of acute mania following an operation for Entropium. No anaesthetic, general or local, was given. The patient was a woman, about 30 years of age. The day after the operation she became restless, refused food, and was irritable on being spoken to. In a few days she gradually became wildly maniacal, and so violent that she had to be shut up in a room by herself. Eight years before, she had suffered from an attack of insanity. On her removal from the hospital, a month after the operation, her mental condition, though better, was still far from being satisfactory.

THE RELIGIOUS WORK OF MISSION HOSPITALS.

By MILDRED PHILIPS.

There is a great difference in the position some of the hospitals are taking in regard to this matter. With some the medical work has the prominence, with some the religious work. Which of these states exists in any given Hospital will depend largely upon the physician in charge. If he or she has a livelier interest in science than in spiritual things, it will be the former. If more spiritual zeal than scientific, it will be the latter. But neither of these will give such satisfactory results as the proper union of the two. They must be carried on side by side if we fulfil our mission. The people come to us for the healing of their bodies. Though we receive them with a double object in view, we should give them that for which they come, if possible, at whatever, proper, outlay at our command. If we fail to heal them, we have at least given a testimony that will work for good. In many and varied ways can good come from failure under such circumstances, whereas failure without having done our all is likely to result in harm greater or less according to circumstances. We can not be too zealous in the care of the bodies of those who come under our charge. There is room here for us to be continually and ever incited to greater diligence. Still, a

note of warning need not be considered amiss. Judging from my personal experience, and the reports of Mission Hospitals, the temptation lies on the side of letting the medical choke the religious work. If so, it is a serious and grave mistake. I do not say as *Missionary* enterprises such hospitals are a failure, for I do not believe that they are. I think, if *simply* medical work be carried on conscientiously, without self-seeking, with none or only the feeblest efforts at Christian teaching accompanying it, that still such medical work will, *alone*, be a power for good in the evangelization of China; that still such a hospital is a *Missionary* enterprise: because it is an institution where love and goodwill to man are put into practice; because it is an institution that manifests the developements of science possible under Christian civilization. By these means such a hospital conciliates the people, breaks down prejudice, and commands the respect of the people. So much as that is a great work. But in itself that is not saving souls; it is rather preparing the ground, so that when the sower of the good seed does come and stretch forth his hand and begin to scatter the seed, they fall, not all upon hard and stony ground, but some upon good ground, and bring forth fruit, some an hundred fold, some sixty and some thirty fold. Then, truly, are we not unwise as we go along not to see that these seed are scattered broadcast over the ground that *our own hands have so labored to prepare*? We need not do it all ourselves, but see to it, and rest not until we know that the seed are being scattered. I think that we will be rather the wiser, if, instead of trying to do this all ourselves, we secure other help, medical or non-medical it does not matter. The three vital things are—Have they good seed to sow? Are they willing patiently to sow day by day? Have they been taught by the great Husbandman how to do this work? For not all the good seed that falls upon good ground springs up and bears fruit. It must be rightly lodged, covered, watched, watered. Is it reasonable that we are doing all in this line that we can, when out of the thousands that attend many of the hospitals yearly, we see the small number of five, six or a few more brought into the church? In my own work I am so fortunate as to have a foreign assistant appointed to this as her special work. Were it otherwise, I fear I would find it impracticable for me to give to the patients the religious instruction that they ought to have.

This plan will lessen the work and the responsibility falling upon the individual, while I think more real good will be accomplished than where we overcrowd and overwork ourselves in trying to combine the two lines of work in the individual.

Soochow, May 21st, 1889.

REPORT OF THE LONDON MISSIONARY CONFERENCE.

By A. L.

The Report of the Centenary Missionary Conference, held in London last year, fills two large volumes. The editor, the Rev. JAMES JOHNSTON, is certainly to be congratulated on the way in which he has performed his editorial duties, and on his being able to furnish the public with the books at such a low price. These volumes are full of valuable information concerning Protestant missions, and all the missionary questions of the day are more or less fully and freely discussed.

In this journal the medical missionary parts interest us more especially. Medical missionaries have no reason to complain of the treatment which their special work has received. They have reason to be thankful, for these reports bear ample evidence of the fact that medical missions are becoming more and more appreciated, and their importance recognised, by the Christian Church and by missionaries. Dr. LOWE, of Edinburgh, mentions, in his address, that when he went out to India, in 1861, there were not more than 20 medical missionaries in the foreign field, in 1878, there were between 90 and 100, but now, there are more than 300 medical missionaries in all parts of the world, and of these about thirty are fully-qualified lady physicians. This fact alone shows great progress, and Dr. LOWE himself has played no mean part in the bringing of it about.

Chinese medical missions apparently were not numerically, strongly represented at the Conference, but they were efficiently represented by Drs. MAXWELL, GOULD & WILSON. Dr. MAXWELL's paper on "The Relative Value for Mission Purposes of Hospital, Dispensary, and Itinerant Medical Work" is an able one, and his conclusions will be generally accepted by medical missionaries in China. His paper deals more with the spiritual, than the medical results of medical missionary effort, and he sums up as follows:—"All three methods are "useful to the complete manifestation of the medical missionary's efficiency "as a servant of Christ. The intensive spiritual force cannot fail to be more "fully shown in hospital work than in any other, the rapid diffusive philan- "thropic influence will reveal itself more rapidly through the dispensary, whilst "the living presence of the medical missionary, as he passes from village to "village in itinerating tours, will prepare the way most effectually for the labours "of the evangelist." Another statement which he makes is worth quoting, as it corrects a misconception regarding medical missions which is widely prevalent. The misconception is that "medical missionary work is only good for pioneer

purposes, and that its use ends there." MAXWELL says, that "brief residence in any mission field in China would soon satisfy the most rigid upholder of this theory, that his idea of pioneer work must be made to cover scores of years, during which time the medical mission is continually gathering fresh increase of power and efficiency. The fact is, that the mission hospital is not only a pioneer agency, but from year to year a great feeder of the Church."

Amongst the subjects discussed were the following:—The Power and Place of Medical Missions; The Relation of the Doctor to the Mission and to Mission Work; Ordained and Unordained Medical Missionaries; Training of Native Medical Students, etc.

Emphatic testimony was borne to the absolute necessity of medical missionaries, both men and women alike, being fully trained and equipped for their work. About this there was no uncertain sound. The subject of a partial medical training for missionaries was touched upon by several speakers. Perhaps a fuller consideration of this matter would have been profitable. So far as China is concerned, many experienced missionaries will agree with Mr. HUDSON TAYLOR in his remarks on this subject:—"Twenty years ago," he says, "my own opinion was very much what has been expressed here,—that all missionaries should have a limited measure of medical training. I have now come to the opposite opinion. I think it is a profound mistake to give a person just a smattering of medical knowledge. I have seen many good missionaries spoiled, and very few really benefited by it. Let us have medical missionaries." Some missionaries who, in the earlier years of their missionary career, used to carry about with them mixtures, ointments, and liniments, have come to think that this kind of philanthropy is more a hindrance than a help to them in their work. It takes up valuable time which he wishes to spend in preaching the gospel or in pastoral work.

It is true that intelligent men and women can pick up a considerable amount of practical knowledge of medicine in a year or two, and that in certain circumstances they may put this knowledge to good purpose. Such persons, however, should not be sent out as medical missionaries, nor, on reaching their field of labour, should they specially give themselves out as healers of the sick. In Indian Zenanas partially-trained ladies may do a great deal of good medically as well as spiritually, but even for Zenana work we would say, "Let us have fully-trained medical missionaries." We have no wish, however, to argue against missionaries obtaining some medical knowledge and training. It may be doubted if England and America are the best places for getting this medical knowledge. Perhaps, if such agents, after getting some idea of Anatomy and Physiology at home, were to proceed to the foreign field and attach themselves to a mission hospital for a year or two, they would probably spend their time more profitably there than by walking the hospitals at home.

Another subject was referred to which perhaps it is unnecessary to notice. Some missionaries, who had no medical training, described how they had been forced to become medical practitioners. One gentleman, who was at a lonely post, tried first homeopathic drugs, but on finding that they had little effect on the sturdy constitution of the heathen, he resorted to patent medicines, using as his guide, the almanacks published to explain these medicines. If these drugs fulfilled all that is said of them, what cures would be effected! While fully appreciating the motives of such workers, we yet doubt the wisdom of this kind of work. There is a serious aspect in this matter which perhaps it may be well to notice. Some patent drugs, no doubt, are harmless, others may be good remedies for certain complaints, but some of the most popular kinds owe their popularity to the alcoholic and morphinic stimulants they contain. Hence, these drugs should not be indiscriminately used. Perhaps it might be possible to find a good brother who is on the one hand taking every opportunity of denouncing the iniquities of the opium trade, and on the other unconsciously doling out to all and sundry, as a panacea for various ills, a patent mixture strongly impregnated with opium.

AMPUTATION AT THE KNEE-JOINT FOR EPITHELIOMA OF THE RIGHT LEG.

October 29th, 1888. By H. W. BOONE, M.D., St. Luke's Hospital, Shanghai.

C. L. C., male, 49, farmer, native of China, married, never had syphilis. When he was six years of age he received an injury of his right heel and of the outer side of the leg: was laid up for some time. The sore healed up, but from time to time it broke out again. During the last 21 years it has been sore all the time, and for 5 or 6 years he has been unable to do any kind of work. His appetite and digestion are fairly good. *Present Condition.*—There is a very extensive ulceration which has destroyed all the soft parts over the heel; the bone is bare and necrosed, the ulcer extends up the leg more than half way to the knee, and the skin is very unhealthy around it. There are very peculiar dark streaks running up the leg in the lines of the superficial lymphatics. The knee-joint is quite sound, and the skin over it is healthy. The patient had a bath, with prolonged soaking and scrubbing of the parts; a dose of castor oil was given, and he was put to bed.

October 30th.—The patient had a good breakfast; his thigh and leg were carefully scrubbed with warm water, soap and a nail-brush, then with a mixture of

turpentine and alcohol. At one o'clock the parts to be operated upon were enveloped in a towel wrung out of 5 % carbolic solution, and oiled paper and a bandage applied over all.

3.15 p.m.—Chloroform was administered with an Esmaich inhaler by Mr. CHING FONG, the house-surgeon. With the assistance of Drs. JAMIESON & REID, and in the presence of the surgeons of H.B.M. Ships "Mutine" and "Heroine," I proceeded to operate by the method of STEPHEN SMITH, of New York. Taking a large scalpel, the incision was commenced about one inch below the tubercle of the tibia, and cut to the bone, then carried downward and forward beyond the curve of the side of the leg, thence inwards and backwards to the middle of the leg, thence upwards to the middle of the popliteal space; repeat this incision upon the opposite side: raise the flap, consisting of all the tissues down to the bone, until the articulation is reached, divide the lateral ligaments, enter the joint, and sever its connections internally and externally. Care should be taken that the incisions incline moderately forwards down to the curve of the side of the leg, to secure ample covering for the condyles, and that upon the internal aspect it should have additional fulness, for the purpose of insuring sufficient flap for the internal condyle, which is longer and larger than the external. The flaps were very flabby, as the muscles were atrophied from disuse, and had undergone fatty degeneration. As this fatty mass would not retract, I had to pare it away after the limb had been removed. The arteries and veins had retracted a little and had to be pulled down and tied with catgut. The condyles were completely covered, and the flaps were brought together with deep relaxation sutures of catgut; the edges were brought into apposition with interrepted sutures of finer catgut. A large opening was left behind the joint for drainage, but no drain-tube was inserted. After cleansing the parts with 5 % carbolic solution, warm, a little iodoform ganze was applied to the line of incision, and over all Gamgee pads and a bandage.

October 31st.—Some pain during the night, for which he had $\frac{1}{4}$ gr. morphia; temperature 100° . On the fifth day the temperature went down to the normal; the first dressing was removed; it was slightly stained with bloody serum; upper part of wound united. Eighth day.—Stain on dressings, which were changed; slight sero-purulent discharge from the degenerated muscular tissues. Thirteenth day.—Dressings removed; wound entirely healed. Good stump; the line of the cicatrix is behind the limb; the surface which will rest on the artificial leg has no scar tissue at all on it.

November 27th.—Four weeks after the date of the operation, he struck the stump against the bed-foot in getting up. There is a black bruise at the upper angle of the scar, and he complains of pain and tenderness over the end of the condyles.

November 28th.—The upper angle of the stump has opened, and there is a discharge which looks like thickened synovial fluid; there is also a flabby granulation, which was touched with nitrate of silver.

December 1st.—Removed dressings; one-half drachm of blood-stained synovial fluid; probe goes in two inches over the surface of the inner condyle; one drachm of blood-stained synovial fluid was pressed out. The stump is perfectly sound and healed up, except this sinus at the upper angle of the cicatrix. Put in a small drain-tube and dressed the stump. The man seems to be quite well.

December 8th.—There is a slight stain on the cotton; the drain-tube had come out of the sinus; pressed out one-half drachm of serum; probe went in $1\frac{1}{4}$ inch; there seemed to be nothing left but the track of the drain-tube. Dressings applied without the drain-tube.

December 10th.—Dressings removed, wound healed.

December 14th.—Tried his wooden leg.

December 17th.—Can bear his weight on the limb; no trouble with the stump.

December 21st.—At his own request, he was discharged. Cured.

The *Lancet* of October 13th, 1888, contains a report of two cases in which this amputation was performed, at "Guy's Hospital," by Mr. BRYANT. Mr. BRYANT refers to a paper which was published in *Medical and Chirurgical Transactions*, New Series, Vol. II., 1885, on Amputation at the Knee-Joint by Disarticulation, in which he strongly advocated the employment of the method of operating by lateral flaps, used in the following two cases:—"These are not good examples of the operation, the time which elapsed before the patients could be pronounced well being prolonged by suppuration."

Epithelioma of the Left Leg following Chronic Ulcer; Stephen Smith's Amputation at the Knee-Joint; Cure.

(From notes by Mr. W. E. TRESSIDER and Mr. F. W. HALL.)

M. A. G., aged fifty-two, living in Dorsetshire, was admitted on November 7th, 1887, and was discharged on March 4th, 1888. The patient was married; had had two children; no miscarriages. She had always had good health. Her present trouble commenced five years ago, when she injured the inner side of her left leg by striking it against an iron bedstead. The wound was about an inch long and not very painful. As the wound did not show any signs of healing, she consulted a medical man. She had been under treatment for a long time, wearing a Martin's bandage most of the time; but the wound had continued to ulcerate, to slowly extend in area, and at the same time to cause her more or less intense suffering.

Condition on admission.—There is a large ulcer on the inner aspect of the left leg, situated at about the junction of its middle and lower thirds; its vertical

measurement is five inches and a quarter, and its transverse diameter is about four inches and a-half, reaching in front to within half-an-inch of the anterior border of the tibia, and nearly to the middle line at the back of the calf; the base is very rough and irregular, and formed of fungating, unhealthy-looking granulation tissue. According to the patient's account, the ulcer has been steadily growing from the first; it has shown no tendency to heal, but has gradually progressed in every direction: the surface is exceedingly tender, and any pressure or other irritation from the dressings, or exposure to cold air, gives the patient intense agony. Below the sore there is some swelling under the skin on the inner side of the ankle-joint. A section of the ulcer taken from a part near the margin, showed clearly the characteristic structure of epithelioma.

22nd.—To-day Mr. BRYANT amputated the leg, employing STEPHEN SMITH'S method of amputation at the knee-joint. The patient was put under chloroform, the leg raised in order to deprive it of blood, and an Esmarch bandage placed round the thigh. Mr. BRYANT then made an incision, beginning from a point about an inch below the tubercle of the tibia and carried backwards and slightly downwards over the outer side of the leg. As the incision reached the posterior surface it was curved upwards to the middle line. An exactly similar incision was then made on the inner side. Both flaps thus formed were dissected away from the deep fascia, and therefore consisted only of skin and subcutaneous tissue. Mr. BRYANT then cut through the fascia and capsule of the joint in front, keeping as closely as possible to the articular surface of the tibia and separating attachments of semilunar cartilage. Traction being put upon the leg, he then cut through the lateral ligaments of the joint and the tendons of the muscles on each side: he then divided the crucial ligaments within the joint and cut through the attachments of the semilunar fibro-cartilage to the margin of the tibia. This was done in order to secure the apposition of the semilunar cartilages to the articular cartilages of the femoral condyles. Lastly, the knee being in the semi-flexed position, he cut through the vessels, nerves, and muscles, at the back of the joint, thus completely separating the leg at the knee-joint. The vessels were then tied and Esmarch's bandage withdrawn. There was then some spouting from one of the articular arteries (or sural), which came off above the spot where the main artery was cut through, but this was soon stopped. The wound was then well washed with warm iodine lotion. The flaps having been brought together, their edges met along a vertical line situated entirely behind the stump, the lower part being covered by the skin over the patella and the portion which normally lies in front of the joint between the patella and the tubercle of the tibia. A drainage-tube about three inches long was inserted upwards into the cavity, three silk sutures fixing the edges of the flaps above the tube and two below. The stump was then well covered with iodoform gauze strips, and these were overlaid with a triangular piece of Gangee tissue. A back splint was then

placed in position, and the whole firmly bandaged. The patient was put back to bed, with the stump slightly elevated under a cradle. Two ounces of brandy were given at once, and a quarter of a grain of morphia subcutaneously.

29th.—Patient doing very well. Temperature this morning 98·8°. Her general health is very good.

December 1st.—The temperature has risen to 100·1°. On examining the wound this afternoon, a fluctuating swelling was found just above the knee. Mr. BRYANT cut into it, and a quantity of clear, pinkish, bursal fluid was discharged; a drainage-tube was put in, and the wound dressed with iodoform gauze, etc.

2nd.—Wound dressed; a small quantity of fluid was found behind the joint; the wound was probed, and some adhesions broken down to let it out. Temperature 102·6° this afternoon. Ordered five grains of quinine.

5th.—The lower third of the thigh looks inflamed, so hot lead-and-opium lotion has been ordered. Temperature 100·6°.

6th.—The leg does not look so inflamed this morning. Temperature 99·6°. There is still considerable discharge; an extra drainage-tube was put in yesterday.

7th.—The inflammation has quite subsided: the lead-and-opium lotion has therefore been discontinued. Temperature this morning 99·2°.

9th.—Leg dressed this morning; there was a good deal of discharge. The stump is very sensitive. There was some inflammation this morning and the lead-and-opium lotion was again applied. Temperature this morning 100·2°.

10th.—The inflammation has quite gone, and the lotion was discontinued this morning. Discharge about the same. Temperature last night 101·8°; this morning 99·4°.

13th.—Discharge less for the last three days. Temperature 99·8°.

17th.—Scarcely any discharge this morning; the wound is now about an inch long. Temperature 99°.

January 31st, 1888.—Wound quite healed.

March 2nd.—Patient had a wooden pin fitted.

4th.—Patient discharged from the hospital with an excellent stump. The soft parts move readily over the condyles of the femur.

*Recurrent Melanotic Sarcoma of Right Leg after Amputation of Foot
two years and a-half previously; Stephen Smith's
Amputation at the Knee-Joint; Cure.*

(From notes by Mr. BROCK and Mr. W. STEDD).

S. A. W., aged fifty-three, a laundress, was admitted on March 11th, 1887, and was discharged on September 11th, 1887. The patient has been married twice, and has had eighteen children, ten being still alive.

Condition on admission.—The patient suffers a good deal. There is a granulating surface on the base of the stump about the size of a-half-crown; there are several dark-coloured spots scattered on the stump, one about the size of a sixpence, situated at the posterior part, looks very like melanotic sarcoma.

Operation.—On March 18th, the patient being under the influence of chloroform, Mr. BRYANT amputated at the knee-joint. The amputation performed was that known as STEPHEN SMITH'S. Each flap was formed by an incision commencing one inch below the tuberosity of the tibia and running downwards and forwards over the side of the leg until it reached the posterior surface, when it was curved towards the median line; the soft tissues were then dissected away from the bones of the leg as high up as the upper margins of the tuberosities of the tibia. Mr. BRYANT next separated the semilunar cartilages from the tibia and allowed them to slip up on to the condyles of the femur, so forming a cartilaginous buffer: the leg was then removed at the knee-joint. All the injured vessels were twisted; the capillary oozing was stopped by means of sponges dipped in hot iodine water, and the flaps were stitched together with silk sutures. A drainage-tube was inserted and the wound dressed with iodoform: an external splint was applied.

March 19th.—Patient had a morphia injection. She is in great pain this morning. The wound was dressed; there was a good deal of serous discharge. Temperature 100·4°.

20th.—Patient had sickness, so she was ordered one minim of tincture of iodine to a teaspoonful of water, to be taken every twenty minutes. The wound looks healthy; discharge about the same.

22nd.—The sickness has ceased. Ordered an ounce of brandy and eight ounces of port wine.

25th.—There is a little eczema of the thigh this morning. Boracic ointment was applied to it. Four sutures were removed this morning.

28th.—The eczema still continues. A little pus was found in the discharge this morning. Temperature 100°.

30th.—The patient is better this morning. The eczema is disappearing. There is still a little pus in the discharge. Temperature 99·6°.

April 1st.—She is going on well. No pus in the discharge. Temperature 98 2°. The last suture was taken out to-day.

6th.—The wound looks well. Temperature 98·2°. No pus.

May 16th.—Stump healed up and looks well.

June 2nd.—The wound has re-opened. A good deal of serous discharge and about three drachms of pus came away. Temperature 100°.

3rd.—Wound dressed; discharge about the same. Temperature 100·6° last night; 99° this morning.

8th.—Discharge about the same. She complains of a good deal of pain, and there is a tendency to bagging on the lower aspect of the stump.

July 4th.—For the last three days there has been considerable redness and tenderness on the outer aspect of the stump. The temperature went up to 102°. This afternoon there was distinct fluctuation to be felt. Cocaine was applied. Mr. BRYANT made an incision in the direction of the limb (half-an-inch in length); about five ounces of bloody pus were got out. The wound was syringed out with iodine water and dressed with boracic and iodoform gauze. It was suggested that the suppuration was due to breaking down of the cartilages, etc.

12th.—A great quantity of discharge daily from the stump. Patient complains of great pain in the stump. Temperature 98·8°.

16th.—There was a large quantity of thick pus on the dressings this morning, which seems to have come from the old sinus at the bottom of the stump, and about another ounce escaped during the dressings. A probe can be passed inwards for some distance into the abscess cavity.

20th.—The patient is better. The discharge has nearly ceased. Temperature keeping down.

27th.—Stump quite healed; it is very well rounded, with the scar quite behind and running up the limb. The patella is drawn up in front of the condyles, but does not show prominently on the surface. The soft parts are rather tightly fixed to the end of the femur, but at the same time they seem ample enough.

September 11th.—Patient's condition very good indeed since July. Wound quite healed.

Remarks.

In the report of Mr. BRYANT'S cases it is stated, "He then divided the "crucial ligaments within the joint and cut through the attachments of the "semilunar fibro-cartilage to the margin of the tibia. This was done in order to "secure the apposition of the semilunar cartilages to the articular cartilages of "the femoral condyles." In the report of the second case, the following remark is made:—"It was suggested that the suppuration was due to breaking down of the cartilages, etc." In both of these cases the recovery was delayed by prolonged suppuration, which was due, no doubt, to this very fact of the semilunar cartilages being freed from their attachments and left in the flap,—they acted as foreign bodies, and it was only after the cartilages had broken down and been discharged by the process of suppuration that recovery took place.

In the case reported by me there was perfect recovery on the thirteenth day, with a firm, sound stump free from pain. He could have gone home then, but while waiting for his artificial leg, he happened to sustain a very severe contusion

of the stump against the iron bed-post; this caused some trouble, from which he got well without any serious difficulty. The original directions of STEPHEN SMITH say nothing about the retention of the semilunar fibro-cartilages in the flap. The stump after STEPHEN SMITH's operation is a perfect one, and, unless his operation is modified, there is no trouble about the healthy union of the flaps. McLEOD says:—"The knee-joint amputation is much preferable to amputation through the thigh; it is quicker, easier, requires simpler instruments, and is attended with less bleeding; there is less shock, less danger of septicæmia and osteo-meyelitis, as the bone remains sealed: the integuments preserved are, as a rule, better adapted to sustain pressure: there is less risk of injury to flaps from a rough sawn bone; less retraction of muscles: the sustaining power is more quickly acquired: the point of support is broader and better fitted for pressure: from large anastomoses about the joint, the blood-supply is more quickly established: the redundant size of the articular head of the femur in time disappears." E. D. HUDSON, states:—"The practice of dividing the condyles cannot be sustained by any rational hypothesis, nor practised on any scientific principles; except disease or injury of the condyles compel their excision, their osseous covering and cartilage investments should be kept inviolate from knife and saw, for, as constituted, they are the strongest, most tolerant and important supports in the entire body; the inter-condyloid fossa is readily filled with a neatly-shaped elastic pad, of wool-felt, even with the convexity of the condyles, and made to extend over them for a cushion, in the adaptation of prosthetic apparatus. Equally reprehensible is the method of placing the patella over the fossa with a view of making that a point of support, and also of sawing off the condyles and applying the patella to the cut surface; these and other ingenious experiments are of no practical value." The case which I have reported was operated upon before I had the opportunity of reading the reports of Mr. BRYANT's cases. The result was so good, and the stump resulting after the operation was so admirably adapted to furnish a sound basis for support, that I deem it my duty to call the attention of the members of the Society to this form of operation as one from which they can expect to obtain the most satisfactory results.

NOTES ON A CASE OF OBSCURE BRAIN TROUBLE IN THE MARGARET WILLIAMSON HOSPITAL, SHANGHAI,

Under the care of Dr. GALE.

Patient, a Chinese male child about five years of age, was admitted to hospital on the afternoon of Jan. 23rd, 1889. The previous history of the child is as follows:—From infancy he has not been strong; as a baby he cried constantly. The family thought he had brain trouble, because he did not sleep. Until a year old some one was constantly trotting him. Was subject until within a year to protracted attacks of diarrhoea. During this last year the family considered him very well.

In the 11th month of last year a brother had measles; at that time this child for two weeks had fever at night. Some time during the 12th month the present illness began with vomiting, which continued during the day and has not since been repeated. This was followed by convulsions, repeated as many as ten times in one day: the convulsions were followed by coma; after one he was in profound stupor for two days, the only indication of life being his breathing. For three weeks before entrance there had been no convulsion, but speech was entirely lost, hearing and sight doubtful, and there was paralysis of both upper and lower extremities.

On admission child was extremely emaciated, flesh and muscle wasted, abdomen retracted. The face was small and pinched, and of a dusky hue. On the forehead between the eyes was a plaster covering a spot where the child had scratched himself severely. There was considerable ecchymosis of the right eye, and from the closed lids of both issued a puriform fluid. The gentlest touch of lids for the purpose of inspecting the eyes was forcibly resisted as if painful. The teeth were much decayed, the central incisors being mere stumps. Tongue was coated with a white fur, the breath musty. When put to bed lies on the back, quite unable to turn in any direction. Nucha contracted, but not markedly so, noticeable chiefly when trying to lift or turn the head. Eyes closed, breathing quiet and not accelerated. On waking, eyebrows contracted as if in pain, and utters a shrill cry, unaccompanied by tears, the cry being almost constant. While awake it was impossible to count the pulse on account of the choreiform movements of both hands when touched, and the hyperaesthesia of the skin of temples. The muscles of the left side had somewhat regained their power, those of the right were still flaccid and relaxed. Choreic movements seemed easily excited by touch or fretfulness.

Pupils irregularly, but not markedly contracted, that of the left eye the least so. Pulse slower than normal. temperature normal. Ordered Santonine and

Calomel, and Potas. Bromid. gr. v, to be repeated as needed, and Milk every 2 hours. Child slept well.

24th.—Ordered Potas. Iod. gr. $2\frac{1}{2}$ every 4 hours, Potas. Bromid. at night. Bowels moved twice. Had a quiet day and night, sleeping most of the time. Ate eagerly. Eyes insensitive to light, often staring and immovable. Axis of eyes slightly upward.

25th.—Pulse feeble, only 60, respiration sighing, seemed sinking. Gave stimulant of Brandy and Aromat. Sp. Ammon., which revived him.

26th.—Though cry and expression indicate great suffering, is soothed by somewhat vigorous patting, and will fall asleep under it. At noon had a slight convulsion, quieted immediately by Bromide Mixt. Bowels moved by injection, to the child's great comfort; a hot bath at night; Iodide discontinued.

28th.—Passed a good sized lumbricus. Santonine and Calomel repeated.

30th.—No worm passed. Child more comfortable. Inflammation of eyes lessened.

31st.—Pupils of equal size, slightly contracted. Cry less sharp, more a moan; does not frown so much.

Left hand natural in appearance. Right hand can be extended on it-self and on the wrist, but is very flaccid, and soon returns to a position of flexion at the metacarpal joints; thumb abducted into the palm, and the fingers pointing to the radial side.

Feb. 1st.—Ordered stimulating liniment for back.

5th.—Renewed Potas. Iod. Potas. Bromid twice daily. Twitches left side constantly and fretfully when awake. For two weeks the pulse and temperature range have been as follows. Pulse from 60-88 in the morning, from 84-90 in the afternoon. Morning and evening temperature never rising above normal and sometimes sinking to $97^{\circ}2$.

On the night of the 6th there was a great accumulation of saliva, which increased; throat became filled with it and child was unable to expel it. On the 7th discontinued Potash Mixtures, and gave Ammon. Carb. in Syr. Glyc., and an astringent month-wash.

On the 9th and 10th there was some diminution of urine, soon relieved by Cream Tartar.

12th.—Secretions of mouth and throat nearly ceased. Ordered Cod Liver Oil and Iron.

16th.—Begins to look better, does not frown, complexion clearer, notices a little, eyes still partly closed, but no inflammation existing, eats well, Chorea continues.

19th.—Right foot responds feebly to tickling of the sole. Moves tongue constantly.

25th.—Whole appearance has changed. Lies quietly with eyes open, apparently taking notice of what goes on around him. Sheds tears when he cries.

March 3rd.—Notices everybody, smiles often in a silly way, and seems to try to talk.

8th.—Left hand more natural in position

			°	°	Pulse.	
On 22nd Feb.,	Temp.	a.m.	99,	p.m.	99.6	82-98
23rd	"	"	99.2	"	98	72-80
25th	"	"	99	"	99	84-80
March 2nd	"	"	"	"	99	80-86
" 3rd	"	"	"	"	99.2	80-84

The rise in temperature seemed due to the notice taken of him chiefly.

March 7th	a.m.	—	p.m.	99.8
" 8th	"	101.4,	"	99.6, Pulse 106-94
		100		

On morning of 8th seemed very hot, weather close. Ordered Sweet. Sp Nitre as drink, and bathing with Alcohol every 2 hours. At noon temperature fell to 100°, and afternoon to 99° 6.

9th.—86 100°

With the exception of slight fever, looks very bright, eyes intelligent, moves left leg vigorously, and the right one can support itself flexed at knee and thigh.

April 3rd.—Has been constantly improving. To-day was able to walk with support. Attempts at speech more marked, but unsuccessful.

CASE OF PALMAR ABSCESS IN AN INFANT.

Under the care of Dr. GALE.

During December 1887 was called to see a woman suffering from a large abscess in the popliteal space. Opened abscess and dressed with carbolized oil and oakum. Abscess healed in about three weeks. Shortly after the woman gave birth to a child. When the child was two weeks old it was brought in to the Hospital with a large abscess in the palm of the hand, which had made a small opening for itself. This was enlarged, and after a few days, as it showed no disposition to heal, a counter opening was made and a small drainage-tube introduced. The hand was healed in about three weeks. The child has since had a large abscess above the left breast, and yet she is a plump, good-natured baby.

WAS IT ENTERIC FEVER, OR WAS IT A CASE OF TABES MESENTERICA?

23rd March 1882. By CAWAS LALCACA, M.D., L.M., L.R.C.P. Lond.

JOSE HAIMOVITCH, aged three years and a-half, living at the French Yang-king-pang, is one of the eleven children born of strong and healthy parents. She has been suffering from slight fever, headache, restlessness, and has been feeling out-of-sorts for the last three days. When seen in the morning, T. 103·4, P. 150, regular and quick; skin dry; feels thirsty, appetite impaired; *bowels not moved for two days*; urine somewhat high-coloured; lips are dry, tongue slightly furred; *no pain in the abdomen*. *Ordered a saline purgative*. Put to bed. Milk and soda, and beef-tea to be given.

23rd *Vesp.*—T. 104, P. 155. Bowels moved twice. Feels a little easier. Foot-bath at night.

24th.—Slept well at night. No headache. T. 101, P. 130. 4 grs. quinine. *Vesp.*—Bowels moved twice; thin, greyish yellow, with an offensive smell. T. 101, P. 136.

25th.—Had a fair night. One stool similar to those of yesterday. T. 100·8, P. 134. Quinine 3 grs. ordered. No headache. *Vesp.*—Had three stools; yellowish, watery (passes water with the stool) with a deposit, offensive. Very suspicious of typhoid. T. 103, P. 150. Nausea and vomiting.

26th.—Did not sleep well, is restless. Could not keep down quinine. T. 102·6, P. 136. Had two stools at night. Bismuth and Dovers powder given. (Quinine omitted.) *Vesp.*—T. 102·2, P. 140. Had two stools. Does not take nourishment well. Complains of pain in the abdomen. Tenderness about the right iliac fossa and the left epigastric region. Slight gurgling.

27th.—Had fever all night, and was restless. Vomiting troublesome. T. 104 at 8 a.m. 11 a.m. T. 102, P. 140. Had two stools last night. *Vesp.*—T. 102·4, P. 135. Had two more stools.

28th.—Slept a little at night. T. 101·8, P. 134. Had three stools. *Vesp.*—T. 101·8, P. 140. One more stool.

29th.—Just the same. No eruption all the time. Stools continue to be of the same sort, now and then somewhat thickish. T. 102, P. 138. *Vesp.*—T. 103, P. 140. Five stools during the twenty-four hours.

30th.—T. 102·2, P. 136. *Vesp.*—102·4, P. 136. Four stools.

1st April.—T. 102, P. 139. *Vesp.*—T. 102·4, P. 132. Three stools. Complains of more pain in the abdomen.

2nd.—T. 103, P. 144. Had a bad night, and is restless. Had five stools, more liquid. Ordered acid sulph. dil. with liq. opii sedative. *Vesp.*—

T. 101, P. 152. Pain less. No eruption, nausea not so much. Had one stool.

3rd.—Had a restless night. T. 105 at 3 a.m. Had one liquid stool. 10 a.m., T. 102·8, P. 146. *Vesp.*—T. 103, P. 144.

4th.—T. varies between 102 and 104.

5th.—T. sometimes goes up to 105, very early.

6th.—Bowels moved in the morning. Stools, two to three a day. Pain a little less.

7th.—Bowels not moved.

8th.—Fever is getting less. T. 100·8. *Vesp.*—T. 101·2, P. 145. Weak and irregular. Brandy given with milk and beef-tea. Tympanitis and uneasiness about the abdomen, so restless. Turpentine stupes, and a little castor oil ordered.

9th.—Passed two stools, semi-solid, with a large amount of gas. Abdomen somewhat smaller. Sp. Ammoniac with strychnine and Aqua Ment. *Vesp.*—Tympanitis makes her feel very restless. T. 102, P. 150. A little stronger. No stool.

10th.—Had a very restless night. Tosses about all the time exhausted. Had one stool, a hard lump. T. 102. *Vesp.*—T. 102·8, P. 150. Restless all the day. Enema of turpentine with castor oil given.

11th.—Slept a little at night. Feels very tired. T. 100·4, P. 146. *Vesp.*—T. 101·6, P. 150. Tympanitis less. No stool.

12th.—Had a consultation with Dr. ——. Looks a little better. T. 102. Has cramps in the legs. Cod liver oil inunction and iodide of potassium ointment ordered. Mixture of strychnia and ammonia, turpentine stupes discontinued. Marked area of dulness. *Vesp.*—About the same. No stool, and restless, so turpentine enema given.

13th.—Area of dulness higher up, more flatus. T. 99·6, P. 150. Feels worse. *Vesp.*—T. 101. No stool.

14th.—T. 100·4. Restless night.

Measurements:—Round the umbilicus	...	23½ ins.
2 ins. above	...	24 "
Round the mark	...	23½ "
Upper mark to pubes	...	8¼ "

Area of dulness marked varies. *Vesp.*—T. 102. Enema given.

15th.—T. 100, P. 144. Passed about 15 hard, round lumps by the enema last evening. Does not take nourishment well. *Vesp.*—T. 100·4. Area of dulness much less all over.

16th.—T. 99. *Vesp.*—T. 101.

17th.—T. 98·6. *Vesp.*—T. 100.

21st.—Temperature normal in the morning all this week; evening goes up to 100. Pulse 130. Bowels moved once, sometimes twice a day, more solid. Takes nourishment. Is more cheerful. Has tympanitis.

Measurements:—Round the umbilicus ... $22\frac{1}{2}$ in.
 2 in. above 23 „
 Upper mark $22\frac{1}{2}$ „
 Upper mark to pubes ... $7\frac{1}{2}$ „

23rd.—No fever on two days. Bowels move once. Feels hungry. Sleeps well. Abdomen looks smaller and softer. P. 90, a little stronger but irregular, intermits.

24th.—No fever. Stool once. P. 116. *Measurements*:— $22\frac{1}{2}$, $22\frac{3}{4}$, $22\frac{1}{2}$, $7\frac{1}{2}$.

25th.—A little fever last night. T. 102. Had one stool last night, watery. (Had some sweets on the sly.) Port wine given. Ammonia and strychnia mixture stopped for three days, on account of the cramps in the leg she has been feeling this week.

26th.—Last night T. 100. Had three watery stools yesterday. To-day T. normal P. 92, intermits.

27th.—No fever. Had no stool. P. 100. *Measurements*: $22\frac{1}{2}$, $23\frac{1}{4}$, $22\frac{1}{2}$.

30th.—No fever. P. 120. Bowels not moved for two days, so castor oil given. Abdomen soft. Does not take nourishment well.

1st May.—Had one large, hard lump of fæces after the castor oil. P. 110. No fever. Abdomen $22\frac{1}{2}$, $23\frac{1}{4}$, 23.

3rd.—Gets one stool every day. Is getting over the habit of passing water in bed. Appetite good. Takes Vin de Voelkel. Fellows' Syrup ordered.

6th.—Passed a little blood and mucous in the stool. Stopped the Syr. Hypo. and Vin de Voelkel. Milk diet and rest in bed. Stop also the cod liver oil uncton.

7th.—Had one stool, no blood.

8th.—Had two stools, no blood.

9th.—Passed a little blood and mucous. Castor oil and opiate given.

10th.—Had two stools in large lumps. Comfortable. Takes no medicine. Milk, soup and Port wine.

11th, 12th.—Doing well. Had one stool.

13th.—Abdomen still large with flatus. Takes Liq. strychnia with ammonia and chloroform water. The diagnosis of this case rests between its being Typhoid Fever (Typho-Remittent) (Infantile Remittent Fever) or *Tabes Mesenterica*.

The mesenteric glands, in enteric fever secondarily are almost always congested and swollen.

I might mention some points which would help us to diagnose this case.

1a. Family history; 1b. Previous history; 2. Duration of the disease; 3. Temperature; 4. Diarrhœa; 5. Abdominal symptoms, pains, tenderness,

gurgling; 6. Absence of eruption; 7. State of the tongue; 8. Skin; 9. Enlargement of the abdomen, due to enlargements of liver spleen, retained fæces, flatus, and a little fluid; 10. A lump in the left lumbar region. no œdema; 11. State of the other glands in the body.

NOTES ON REMOVAL OF TUMOUR FROM THE BUTTOCK OF AN INFANT.

In December of last year, I was called to attend a young child of three, an inmate of St. Mary's Orphanage. Upon examination, I found a large, flattened growth—that is, large when the baby surroundings are considered—situated immediately off the coccyx and seated deeply in the gluteals. There was considerable turgidity and ecchymosis of surrounding parts. Upon enquiry, I ascertained that the tumour had been noticed only within the past four months, and of late, the child had drawn particular attention to it, as owing to its situation and appearance it must have caused some considerable distress; its growth, moreover, had been more rapid of late. Beyond the fact of the growth being lobulated, such a contrariety of detail presented themselves, that no very satisfactory diagnosis could be made, beyond the probability of its being a mixed tumour, and as every facility for prognosis would present itself, and the child's health not being good, I did not wish to immediately interfere. A week or so after, an opportunity occurred of obtaining another opinion, of which I availed myself, the result being that seeing to the existing conditions of the growth, it mattered little as to its nature, as to whether it was elephantiasis, viewing the thickened dense and more or less tuberculated appearance of the skin, or whether it was some form of mixed tumour, a definite diagnosis could be made upon excision. I had put the child under treatment, syrup. ferri iodidi and cod liver oil, and upon her improving somewhat, I saw that it was necessary to remove the growth forthwith, as not only was the surface of the skin highly inflamed, and on point of ulceration, but was causing considerable distress to the little one. Chloroform being administered, I made a large elliptical incision, so as to enclose the diseased skin, and cut down upon an intermuscular lobulated mass, firmly adherent on all sides to the structures by which it was enveloped. Upon free dissection the growth was removed as radically as possible—a large mass when compared with the surroundings before alluded to. The wound was brought together, a drainage-tube inserted, and dressed antiseptically. Being

situated so closely up on the margin of the anus, involved some little difficulty as regarding dressings. The healing process was slow, attributable, in some measure, to the difficulty of keeping the parts clean in so young a child. Should a case of a similar nature recur, it is my intention to sling my patient, as, taking all the circumstances into consideration—unskilled and not too attentive nursing, etc.—I do not see how it is possible to maintain cleanliness excepting some such arrangement be made. Upon examination of the growth in question, I found it presenting the appearance of a flattened, somewhat ovoidal, tumour, weighing 12 oz.

There are points of interest in connection with this apparently simple case, I would touch upon, prefacing my remarks by diagnosing a fibro-sarcoma, and its being rare in so young a child. The growth in the first instance was possibly a pure fibrous tumour, which developed under conditions of continued irritation and assumed a malignant character, that is, malignant in his clinical sense, the assumption of diagnosis being based upon the diffusion of its parts into the muscular tissue, the preceding of softening to the process of ulceration, the correspondence between the soft, fluctuating feel and its rapid growth and consequent malignancy, and again the rapidity with which it had undoubtedly attained the maximum of its developement, and, what is thoroughly confirmatory, its recurrence now, four months after the operation. I am aware it is recognized that under ordinary conditions tumours of this class grow more rapidly in the young than those which do not form till middle age, and although they never retrograde, small tumours, those say the size of an egg, of this variety, may cease growing late in life. Touching briefly upon the literature of the clinical character of the sarcomata, it is well recognised that they are the most malignant of new formations next to the cancers. They are especially characterized by their great tendency to extend locally and to infiltrate the surrounding structures, so that they are exceedingly prone to recur after removal. "Secondary growths occur very frequently in the lungs," the dissemination being naturally effected by means of the blood, as owing to the thinness of the wall of their blood-vessels, and to the immediate contact of these with the cells of the growth, the conditions are most favorable to the entrance of the cellular elements into the circulation. Referring to the subject immediately under notice, it is an accepted rule, that the softer and more vascular the tumour, and the less its tendency to form a fully-developed tissue, the greater is its malignancy. PAGER tells us that he operated six times upon a tumour of the upper part of the leg, which in two years had been removed five times, and re-appeared for the sixth time after the last operation, when, as it had become large and ulcerated, amputation was deemed advisable, this procedure, however, was followed by death. He relates another instance of a tumour removed from the shoulder, which returned four times in six years, and, with an interval of one year, re-appeared for the fifth time. SYMES removed a

tumour of this kind five times from the upper part of the breast; it recurred a sixth time and caused death. The most interesting case I can find account of is one by MACLAGAN, in which four removals were performed in the course of thirty-six years, twenty-three intervening between the second and third removals, and eleven between the third and fourth. BILLROTH, very characteristically, sums up the mode of development of these sarcomata. He says:—"The first tumour is completely extirpated; after a time, in, under or near the cicatrix, a new tumour appears: this also is completely removed; again a new tumour appears at the point of operation, or at a slight distance from it, and near it, other new ones; the patient begins to emaciate: possibly further operations are not practicable; marasmus occurs: possibly lung or liver tumours, with their symptoms, develop; the patient dies from suppuration from the primary tumour, or from disease of internal organs." It will be observed that the course just described differs from that of carcinoma, because in the latter, continuous recurrence is the most frequent, while in sarcoma the regional predominates, provided the tumour has been completely extirpated. This may readily be explained by the fact that the bounds of infiltrated carcinoma are much more difficult to determine than those of encapsulated sarcoma: hence, *ceteris paribus*, the latter may be more certainly removed; if portions of sarcoma be left, of course there will be continuous recurrence. GREEN gives a case of fibro-sarcoma of the back of the head, when it was twenty-three years from the development of the first tumour, till death from recurring tumours; meantime, the patient was operated on five times, and on each occasion he was cured for some time. From the consensus of opinion of many writers, it is thoroughly established that these tumours appear to become more malignant in the latter than in the earlier recurrences, becoming more painful, rapidly degenerating, and giving rise to an ulcerating fungus, which eventually proves fatal by exhaustion and hæmorrhage. Touching upon the structural changes developed in these tumours under certain irritating conditions, such as were present in this case, VIRCHOW says, "Even connective tissue (that is, fibrous) tumours become, under certain circumstances, richer in cells, and enlarge, whilst their interstitial connective tissue becomes more succulent, nay in many cases disappears so completely that at last scarcely anything but cellular elements remain." This is the kind of tumour which, according to my opinion, ought to be designated by the old name of sarcoma. These sarcomata are frequently indeed benignant, still they do not unfrequently recur, like epithelial cancer, at their original site, whilst under certain circumstances they appear secondary in the lymphatic glands, and in many cases occur throughout the whole body, to such an extent that scarcely any organ be spared by them.

AN OUT-PATIENT DAY AT THE HANGCHOW HOSPITAL,
12TH FEBRUARY, 1889.

By D. DUNCAN MAIN, M.D.

On account of the New Year's holidays, and inclemency of the weather, the out-patients at this season of the year are not numerous; to-day, however, we had a goodly number, and perhaps a few notes on their diseases and the way in which we carry on our out-patient work may be of interest to some of the readers of the *Medical Missionary Journal*.

At 8.30 a.m., the patients begin to assemble at the gate. On admission the name, age, and residence of each patient is demanded by a clerk, who enters the same in a register kept for the purpose. An entrance-fee of 14 cash is charged, in exchange for which a small bamboo ticket is handed to the patient; these tickets are numbered and regulate the order in which the patients enter the consulting-room. From the entrance-hall the patients pass on to the waiting-room, which is large, clean, airy, well ventilated and provided with very *comfortable* seats: Scripture pictures of Chinese art adorn the walls. In the waiting-room an Evangelist and Bible Woman invite the patients to be seated, and then go in for button-hole theology, and in a plain, personal and practical way tell them of Jesus the Physician of Souls. The patients listen with respect and attention, some show great interest in the Gospel story, and many buy portions of the Scriptures, Tracts, etc.

At 10 a big bell rings and summons us to the consulting-room, where, with our students, Evangelists, etc., we kneel in prayer and ask God to help us and enable us to use our skill and medicine as a means to an end and successfully reach the inner man through the outer. Prayer finished we commence our work.

No. 1 is called out, and an old patient enters, and tells us that he is somewhat better, that his medicine agrees with him, and all he wants is his bottle refilled.

2.—Is an ague patient from an ague district. Hangchow and its neighbourhood is very malarious, and the people suffer a great deal from malarial fever and its consequent sequelæ. Sulphate of cinchonidine is prescribed, and No. 2 passes on.

3.—Is a brazier, 44 years of age, married, has a wife and five children, he is badly dressed, much emaciated and ill-looking; has seen better days; he begs for anti-opium medicine. His case was easily diagnosed. The old story—opium! He had smoked opium for 24 years, and in the 6th month of last year, he commenced to try and cure himself with anti-opium pills, which he bought in the city. For three months he gave up his pipe, and took the pills according to the

vendor's instructions, but at the end of the three months, instead of being cured, he discovered that his craving was increasing, and so came to the conclusion that the pills were a snare and a delusion, and he cursed the day he commenced taking them, and again took to his pipe. However, the amount of opium that satisfied him before he commenced taking the pills, now left an aching void, and he has to supplement his pipe with a little raw opium, which he swallows every night at bedtime. On being asked, he told us that one day with another he was able to earn about 100 cash, and that 70 cash of it went for opium, and the remaining 30 cash went towards household expenses. His wife and children wind silk and provide for themselves. We asked him how he managed, under those circumstances, to get both ends to meet, and he said "that here and there he had to beg, borrow," and at this stage I interrupted him and added "steal;" but with a knowing and characteristic shake of the head and twinkle in his eye, he declined the compliment, and ended by saying that, although he was poor, there was one *good* thing about him, and that was, that he was honest. We did not argue the point with him, although we had our own thoughts on the subject. The honesty of an opium-smoker depends very much on the state of his purse. When the craving returns and the purse is empty, honesty does not stand in the way of the desire being satisfied. The honesty of an opium-smoker is elastic enough at times to cover even stealing! We gave him a few words of healthy advice, and invited him to enter our Opium Refuge, and promised, if he did that, we would cure him of his opium habit. He said he was most anxious to enter to be cured, but could not raise the \$3, the fee charged by the hospital for enring opium-smokers, and to convince us that he was in downright earnest about being cured, he said that he had been trying for some days to sell one of his daughters, but could not get anyone to give him even \$3 for her. We promised to admit him free of charge, and said, "We would meet to-morrow," whereupon a student wrote out a prescription for him—a tonic—another entered his disease in a book for the purpose, and a third entered in a register, his name, age, sex, occupation, residence, duration of illness, etc., etc., and passed him on to the Dispensary, where he presented his prescription, which was dispensed free, and then passed out.

The sale of anti-opium medicine is very extensively carried on in this region. It is a dangerous business, and I am sorry to say that Native Christians sometimes dabble in it, but not, I fear, without injury to their spiritual life. Our experience is, that this work does anything but recommend Christianity, and ought to be discouraged on every side. The cases are very exceptional where an opium-smoker can be trusted with morphia pills to cure himself of the opium habit. The pills are very convenient, and, as a rule, are bought not to cure, but to take as a substitute for the pipe by those who find it inconvenient to smoke during business hours.

4.—Was a young man from the country suffering from ague.

5.—Was an old in-patient, who said he wanted a tonic. On renewing our acquaintance, we were happy to find that what he had heard of the Gospel last May, when in the hospital, he had not forgotten. He told us that he had destroyed his kitchen god, and ceased to worship idols, and that he now believed in Jesus the Saviour of Sinners. He is an applicant for baptism.

6.—The next patient was a Shang-tung beggar, who begged for an ointment for a large, callous ulcer on his leg. He gets a prescription for sulphate of copper ointment, and moves on.

7.—Is a friend of No. 6, pale, sallow, and complains of debility. We order him Bland's pills.

8.—Was a middle-aged man, unmarried, with symptoms of tertiary syphilis. On putting a few questions to him, we discovered that his morals were at a discount. A prescription containing iodide of potassium was written out and he passed on.

9.—Was a girl, 10 years of age, brought by her father, suffering from strumous disease. The glands of the neck were much enlarged and several were suppurating. We prescribed syrup of iodide of iron. On examining her hands, we discovered that she had been canterised on the adductor muscles of the thumb, and the reason given for this infliction was, that it was to prevent her from constantly going to stool. The Chinese here cauterise a great deal, in fact there are very few diseases in which cauterisation is not applicable. They use for the purpose the woolly leaves of the *Artimesia Mosu*, which are dried, and then rolled up into a pellet, placed upon the affected part, and then set fire to. Well-marked keloid masses are often produced as a result.

10.—Was a young man in silks, wanting our advice about a leper (a woman). He wished her admitted to the female ward. We told him, if she was admitted, we might be able to relieve her symptoms, but that we could not cure the disease. He seemed satisfied, and went off to fetch his patient.

11.—Was an ague patient. Quartan type.

12.— Do. Do.

13.— Do. Do.

14.—Was a patient from the country, 70 miles from Hangchow, who wanted medicine for himself and 10 friends, who were all ill. His own complaint was "a lump in his stomach," for which we gave him a mixture containing soda, rhubarb, ammonia and peppermint. He described the symptoms of his 10 friends as follows:—

a.—Twenty-six years of age, male. Complaint, cough with black (black as ink) expectoration.

b. Male, æt. 35.—Cough with white (white as snow) expectoration.

c. Male, æt. 22.—Cough with white and yellow expectoration.

d. Female, *æt.* 23.—Pains in the bones and lumbar region.

e. Female, *æt.* 21.—Had a child a month ago. Complains of a swelling in her abdomen, which moves about from one place to another.

f. Male, *æt.* 45.—Rheumatism.

g. Female, *æt.* 21.—Leucorrhœa.

h. Male, *æt.* 84!—Cough with expectoration, the colour of which he did not know, because he (the patient) was unable to cough it up!

i. Female, *æt.* 21.—Thin blood.

j. Male, *æt.* 31.—No strength. He went away with 12 bottles of medicine, 2 plasters and 1 box of Bland's pills (not bread pills). On leaving, I said that I hoped he did not mean to open a medicine a shop!

25.—Was a woman begging an ointment for her son, who had an ulcer on his foot and was unable to walk to the hospital. We gave her benzoated zinc ointment.

26.—Was a boy, nine years of age, suffering from chilblains. He got chemical food.

27.—Was an old ho-pital friend, suffering from cough, shortness of breath and expectoration, the latter very copious. He was supplied with the Hospital cough-mixture, which contains squills, chloroform, senega and syrup.

28.—Aque.

29.—Do.

30.—Do.

31.—Next was a young man, 19 years of age, with the itch. We prescribed sulphur ointment, and a few remarks on the value of soap and water.

32.—Was an old gent in furs, who said his heart was empty, and wanted something to brace him up. He also said that he would like to pay for his medicine, and we were glad to take him at his word, and prescribed 50 cents' worth of Fellows' Syrup.

33.—A woman with irritable ulcer of the leg. Zinc and Vaseline Ointment.

34.—An old patient, with chronic granular ophthalmia. We paint the inner surface of his eyelids with a solution of nitrate of silver, which we neutralize with solution of salt, and then freely douche the eye with a continuous stream of cold water. We recommend him to come into the hospital for a month, but he has no time and goes off with a zinc lotion.

35.—Was a leper, female, mentioned by No. 10. Hands, feet and face much affected; parts of the toes have already dropped off. Circulation in hands and feet much impaired, and sensation absent in affected parts. She enters the hospital as an in-patient. A student conducts her to the office, where she is registered as an in-patient. The name and address of someone who is surety for her are also entered in the register. She pays \$1 in advance for her board

for a month. The scale of charges for in-patients ranges in proportion with the means of the patients, from \$1 to \$10 per month; opium-smokers pay \$3 per month. We do not profess to give charity to those who are able to pay. The system of paying is a *healthy* one, and as that is in our line, we thoroughly approve of it, and so do the Chinese. They value the medicine and treatment much more when they have to pay a little for them. Those who are really ill and have nothing to pay are admitted free of charge. But to return to our patient, she is conducted to the female ward bath-room, where she is introduced to hot water and carbolic soap, and dressed in hospital garments. From this she is taken to the ward and put into the "Daisy" Cot, which has a spring mattress, sheets and blankets. Nearly all the beds in the female ward are endowed. \$24 supports a cot for one year. It costs the hospital \$2 a month to board a patient, and the average cost for medicine, etc., for each in-patient is nearly \$2.

36.—Was a child 2 years and 2 months old, and still at the breast, suffering from large chilblains on the hands, feet, and face. We ordered it chemical food, and gave the mother a little sound advice, and told her that she was injuring her own as well as the child's health by suckling it so long.

37.—A woman, who complains of sore pains in her bones and stiffness in her muscles, and what troubles her most is, that she cannot raise her hand to comb her hair. Battery and rheumatic mixture.

38.—Patient with psoriasis. We give him Goa Ointment and iron and arsenic mixture.

39 & 40.—Two old patients, with chronic rheumatism, who come to have their medicine renewed and a turn at the battery.

41.—Is an old woman, who brings her son to be cured of an eruption caused by what she calls "*Sch Ky'ji*"—damp air. Our diagnosis does not agree with hers; the Aearus Seabiei is the mischief-maker, and she goes off with sulphur ointment.

42.—Woman with large ulcer on the leg, of many years' standing; it is sealed over with an adhesive plaister, which, when removed causes one to wish for the time being that their olfactory apparatus was not so sensitive. We touch it up with sulphate of copper, give her bran and charcoal for poultices, and recommend her to indoor treatment.

43, 44, 45, 46.—All ague patients.

47.—Old patient, brought her daughter (39 years of age) to have a tooth extracted. A student applies the forceps, and in a very short time the extract is bottled.

48.—Young man, with abscess on the hand, ready to be opened. A student gives him relief with the steel lozenge, dresses it with lint, carbolic and glycerine, and applies a bandage. The patient leaves with instructions to return next day to have the dressing renewed.

49.—Quartan ague.

50.—A leper, for whom we prescribe arsenic and quinine.

51.—A patient with painful piles. He gets gall and opium ointment.

52.—Is an asthma patient. She goes off with box of stramonium-leaves.

53.—A young man with consumption. Both of his lungs are diseased; he is much emaciated, and his cough is very troublesome. We write out a prescription for Begbie's Mixture, and take the opportunity of saying a few words to him about his soul. We tell him plainly that his disease is difficult to cure, and press upon him the importance of not neglecting the salvation of his soul. These few remarks ended, a student informs us that there are no more patients; so we bring our forenoon's work to a close a little before 1 o'clock.



LARGE OSTEO-SARCOMA (?) OF HUMERUS.

THOMAS GILLISON, M.B., C.M.

Patient, YANG FUNG TSUN, Male, 61, admitted to hospital, 10th July 1889.

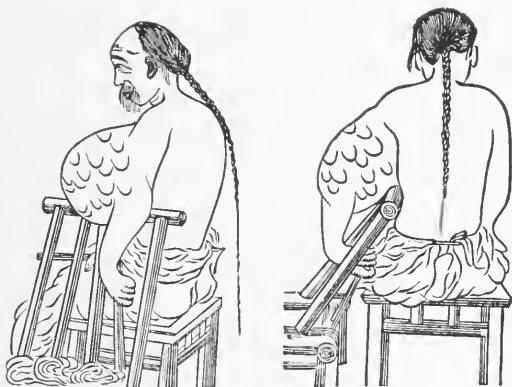
History.—When a child, patient had a fall from a height, and sustained a fracture (?) of his left humerus about the junction of the middle and lower



thirds. After some time this got better, and he could use his arm, but it still remained slightly weaker than the other. The condition remained as above until

four or five years ago, when, at the seat of fracture, a swelling began to manifest itself. It grew continuously, and up till the time that it was of the size of a goose's-egg it was as hard as bone and painless. Gradually, however, it became soft in some parts and remained hard in others. Last year it was of about the size of a man's head. He denies ever having been operated on by a native doctor (?). A scar on the internal surface he attributes to scratching after poulticing with leaves of some sort which had been prescribed by a native physician.

Examination.—The tumour is nodular all over, both in front, and also in the line of the humerus posteriorly, though this is somewhat indistinctly brought out by the woodcuts. Some parts were so soft and fluctuating to the touch as to lead to the conclusion that a proportion of the tumour was cystic. Some of the nodules were of a bony feel, others not so hard.



Measurements.—Extreme length $11\frac{1}{2}$ inches, long circumference $35\frac{1}{2}$ inches, transverse circumference 28 inches, circumference of man's chest 29 inches! The shoulder and elbow joints seemed healthy. The movements of the latter were, however, somewhat limited by extension of the growth evidently into the substance of the condyles of the humerus. The shoulder-joint was perfectly free.

Patient refused amputation for the present.

LONDON MISSION,

HANKOW,

31st July 1889.

The China Medical Missionary Journal.

VOL. III.

SEPTEMBER 1889.

No. 3.

REVIEW.

[*"Report to the Subscribers of the Medical Education Scheme."* By W. WYKEHAM MYERS, M.B.]

This is a quarto volume of some 65 pp., clearly printed, on good paper, and reflecting great credit on the American Presbyterian Mission Press at Shanghai, by whom it is issued. The Geneva Red Cross adorns the cover, whilst an excellent portrait of H E. LI HUNG CHANG and grandson form the frontispiece. The first eleven pages contain Dr. MYERS' account of the progress of his work, from the inception of the scheme to the present time. The next twenty-nine pages are taken up with a reprint of leading articles from various Hongkong and Shanghai Papers, on the occasions when Dr. MYERS and his pupils have come before the public, and also contain the various examination questions set. A list of subscribers, a statement of accounts, and a number of interesting photographs, including the review on the Tientsin Parade Ground, David Manson Memorial Hospital, etc., close the volume.

One is impressed with the thoroughness of the work Dr. MYERS has done, and the indomitable perseverance he has shown in developing and carrying out his ideas. The regulations under which a student enters are well conceived and invite confidence; the names of the gentlemen who have acted as examiners are a guarantee that no slipshod work has been allowed to pass; whilst the papers set are fully up to, and in one or two cases, we venture to think, more than up to, the standard of the College of Surgeons' diploma.

The little episode of the practical test to which one of the candidates was put on the dead subject, affords a valuable and encouraging testimony to the sufficiency of models. Even in England it is very common for students, after having dissected the whole body once or twice, to review, as we ourselves did, with great delight and profit, on the beautiful and unique wax models in Guy's Hospital Museum.

Dr. MYERS' ingenuity so completely triumphed over a difficulty that will constantly present itself to all workers in the field, and triumphed in such a happy way, that we cannot forbear reproducing the passage for the benefit of

our brethren who may not see the Report. In endeavouring to secure practical obstetric training for his pupils, he determined on the following plan of action :— “ After summoning all the old crones of this district, who practised as midwives, to a ‘ friendly tea,’ showing them the mannikin, and talking generally about the subject, they agreed to attend a course of three lectures a week. This went on for *six* weeks, by which time I had, at least, explained the more important and leading points, and practically demonstrated, or rather allowed them to discover for themselves on the mannikin, the absurdity of their own theories and procedure. The plan, though tedious and taking time, succeeded ; the old creatures became so far amenable that, by addition of a *douceur* for each case provided, it was possible, at last, to enable my students to obtain and attend five cases, for which I granted certificates.” Dr. MYERS makes some wise remarks on the advantages of the tutorial system of teaching for Chinamen. We can scarcely say that our experiences at home have led us to the conclusion that Lectures were either “ useful ” or “ pleasant.” Of the many courses that we attended, we can only recall about *two* that were useful, the rest were a decided bore, and as such regarded by most students, chiefly useful as providing a quiet hour in which tired and over-worked brains could obtain the refreshing sleep they so much needed. We are heartily glad that Dr. MYERS has pronounced against the system, and we thoroughly agree with him when he writes, “ I submit that in China, and for the Chinese, at least for many years to come, the tutor’s *close and continued association*, together with his definite explanation of statements and facts, such as only a tutor can give, must rank above the lecture system ; ” and again, “ the tutorial method, and that only, can put a *Chinese* medical studentin a proper position to understand.....and also to guard against his natural proclivities for learning by rote.”

We are glad to note that Dr. MYERS pays a graceful and just tribute to the work that HOBSON, KERR, DUDGEON and other medical missionaries have done, but when he describes the efforts they have made to train native medical men as simply “ teaching native attendants the use of simple drugs and appliances, which these persons afterwards have been sent out to employ,” he is more than unjust. Dr. MACKENZIE, of Tientsin, in the Viceroy’s Hospital (see Vol. I. *Medical Missionary Journal*, p. 100) did something far more than that ; and Dr. KERR, of Canton, is still doing something different to that, and the well-informed world knows it. It would not be difficult to produce old pupils of both these hospitals who could give a very good account of themselves. Dr. MYERS has unconsciously caught the tone of certain journals we will not name, though Dr. BOONE’s letter last year, in the *North-China Daily News*, should have given him a different estimate of the training medical missionaries give to that which he seems to hold.

On page 12 Dr. MYERS refers to hints that have been thrown out as to this scheme being a plagiarism, or, at any rate, suggested by what has gone before, and very properly contends that, "as to the extent of knowledge required of the candidate, the length of compulsory study, and, above all, the necessarily independent and peculiar precautions taken to secure that these requirements have been complied with, the scheme now under notice cannot fairly be said to have been anticipated or improved on as yet, at least by any other that has reached maturity." Nevertheless, as early as December 1881, MACKENZIE had commenced his medical school in Tientsin, under the patronage of the Viceroy LI HUNG CHANG, having as pupils eight young men who had been living in America for from seven to ten years, taking them through a three years' course with a set of apparatus as complete as any that Dr. MYERS possesses, and passing examinations conducted by foreign medical men. The Hospital possessed also a small Ambulance service for seven surgeons, with a very complete supply of everything necessary. Had Dr. MYERS admitted all this he would have lost nothing by it, and no sensible man would have called him a plagiarist.

We can only spare a few lines to touch on the subject of English as the medium of teaching; the subject is too wide and too important to be thus dismissed; the late Dr. MACKENZIE gave his view on it in Vol. I. of *The Medical Missionary Journal*, p. 127. It seems to us that Dr. MYERS and Dr. MACKENZIE, while both agreeing in the necessity of English, differ in one important particular,—that the latter recognizes that this anomalous state of things will last only for a time, but the former *seems* to take for granted that all Western medical education to be *thorough* must for all time be given in English. Our own predilection is with the former. It seems to us plain, beyond controversy, that if ever Western science is to become general in China it must be through the medium of her own language. But this cannot be yet. Meanwhile such work as Dr. MYERS is doing,—work of the highest quality, undertaken and carried out at great labour and perseverance,—is hastening the coming of that day. We wish him all possible success in his work, and trust his students may find a more profitable future than some of those did whom the great Viceroy formerly patronised.

S. R. H.

NOTICE.

Election of Delegates from the Medical Missionary Association of China, to attend the Tenth International Medical Congress at Berlin in 1890.

The Tenth International Medical Congress will meet in Berlin in 1890, and we are invited to attend its meetings. It will be necessary for us to elect delegates to represent our Medical Missionary Association. The only way to get delegates to serve is to elect those who will be at home in 1890. Our best plan will be to find out the names of those who will thus be eligible for election. It will be advisable to elect as many delegates as may prove to be eligible, for of the whole number elected, probably not more than one or two will find it convenient to be present at the meeting of the Congress. Dr. VON S. TAYLOR and Dr. DUNCAN MAIN, of the Church Missionary Society, Dr. A. L. MACLEISH, of the English Presbyterian Mission, Dr. D. CHRISTIE, of the United Presbyterian Church of Scotland, Dr. W. A. DEAS, of the American Protestant Episcopal Mission, Dr. E. REIFSNYDER, of the Woman's Union Mission, are now at home or going home soon. No doubt, Members of the Association can suggest other names.

Need of timely action.

It will be necessary for those delegates who can attend the Congress to write and inform the Secretary-General of the Congress at Berlin, of their intention, and to notify him of the subjects on which they desire to read papers. We therefore need an early election in order to enable our delegates to carry out their part of the work.

Send in your votes.

All members of the Medical Missionary Association of China are requested to communicate as soon as possible with the Secretary, Dr. GALE, of Shanghai, sending the doctor a list of the names of those whom they desire to have serve as delegates to the Tenth International Medical Congress.

H. W. BOONE, M.D.,

*President Medical Missionary Association
of China.*



HOSPITAL REPORTS.

FIRST ANNUAL REPORT OF THE CHI-CHOW DISPENSARY, 1888.

*In connection with the London
Missionary Society.*

Dr. McFARLANE's report is a neatly-gotten-up brochure of over 30 pages, telling, in the first instance, of his advent only six months previously his struggles and successes. The Doctor, in warmly acknowledging The Rev. W. H. REE's services as assistant and interpreter goes on to say:—

"The Dispensary is open daily. After morning prayers with our native Christians, the large gates are thrown open, and in stream the patients, who are anything but patient. Bamboo tickets being next distributed, a short gospel service is held in the Chapel, followed by the chief feature of our work—individual dealing with each person. Some refuse to be spoken to, stating that they only came for medical relief. By selecting an intelligent-looking patient and entering into a cheery conversation with him, whilst the others listen, we generally manage to secure universal attention."

And again, in referring to the difficulties of obtaining a suitable building for a Hospital, "Every one demanding fabulous prices for rent, because we were foreigners," quoting him, he tells us that, "The Lord graciously answered prayer and opened the way. A man who had previously refused us his premises eventually consented, and now we rejoice in a little hospital accommodating eight patients, quite private, surrounded by a wall, and in close proximity to the Mission, for which we pay a very small rent."

Number of Patients treated during 1888 (July to December).

Visits paid by patients to Dispensary	5,116
In-patients (including those at the Chinese inn) ...	98
Visits paid to patients at their homes	63
Number of operations ...	262

REPORT OF THE MISSION HOSPITAL AT SWATOW.

Presbyterian Church of England, 1888.

ALEXANDER LYALL, M.B., C.M.

Dr. LYALL reports that the various branches of the work were carried on as usual with a fair amount of success, both from the medical and the missionary points of view, the following statistics being advanced:—

In-patients	2,719
Total number of visits of Out-patients to the Dispensary	7,500
Number of Operations ...	853

Two events on the Annus medicus of Swatow must be recorded,—the first is that Dr. COTSLAND has opened a Dispensary in the city of Chao-chow, "thus beginning a work which we trust and believe will be greatly beneficial to the people of that city and its vicinity." The Doctor, in further allusion to this, says:—"Almost from the first week the number of patients coming for treatment has been so numerous that it was necessary to limit the number admitted each day." The other event is the proposal by the native merchants of Swatow to erect

a large Hospital, to be conducted according to native principles, and to be placed under the charge of Chinese Physicians imported from Shanghai or Hongkong. The foundations have already been built. Mrs. LYALL, in giving a most interesting account of the Evangelistic work, remarks,—"Special efforts have been made by the ladies of the mission that no woman among the patients should leave the hospital without having obtained sufficient knowledge of the Truth, to lead, sooner or later, to her becoming a Christian, should she ever have a desire for something better than can be found in idolatrous worship."

From the six pages giving an account of operative work, the following two paragraphs are condensed:—

Large Fibroma.—This patient, a woman, aged 46, was admitted with a large pedunculated tumour, growing from the posterior aspect of the right shoulder and reaching nearly to the hip, measuring about $2\frac{1}{2}$ feet in circumference at its widest part. Its weight was so great that frequently on sitting down patient would lose her balance and fall backwards to the ground."

Elephantiasis Scroli.—There were only two cases operated on this year, the tumours weighing after removal 25 lbs. 10 oz. and 9 $\frac{1}{2}$ lbs. respectively."

CHAO-CHOW-FOO DISPENSARY.

Brief mention has already been made of this Dispensary, which, notwithstanding its extreme infancy, Dr. COESLAND is much to be congratulated upon the good work already done. "The Dispensary was opened on the 18th November 1888; from that time to the end of the year 1,969 patients were seen. . . . A good feature was the large proportion of women—nearly one-third. . . . This surely shows some little confidence in us and our methods."

Operations 55, including "Removal of fatty tumour of back" (weight 12 lbs. 12 oz.)

REPORT OF THE BANGKOK HOSPITAL FOR 1888.

Dr. HAYS, who took charge in November of 1888, reports the total number of out-door patients treated in 1888 to be 3,457, being an increase of 210 on 1887; vaccinations 41. Among the operations performed, number not given, the most notable was an amputation of leg below knee and below hip-joint. This Hospital appears from its report to be established upon a very gratifying financial basis, "and is about to open a new wing."

FOURTH REPORT OF THE MEDICAL MISSION AT T'AI-YUEN-FU, SHANSI, NORTH CHINA.

C. I. Mission, 1887-8.

E. H. EDWARDS, M.B., C.M.

Dr. EDWARDS remarks that, owing to sickness and the necessary work in connection with the building of the new chapel, dispensary, and the commencement of the Schofield Memorial Hospital, the Report does not really represent the two years' work.

Statistics are given of 155 in-patients in 1887, and in 1888 of 2,566 out-patients, including 2,453 out-patients and 113 in-patients, and 118 operations. Space unfortunately precludes mention of some details of interesting cases recorded in "Brief Notes." The Doctor gives an account of the immediate and permanent relief resulting from the employment of FAYRER'S treatment in summer diarrhoea or sprue, that of milk diet, equable temperature night and day, and rest in the recumbent position. We can ourselves substantiate the efficacy of this treatment under the circumstances indicated.

Opium Refuge.

During the thirteen months of the two years the Refuge has been open, 101 patients have passed through it, with the results that 88 were dismissed free from

craving, 10 left before time was up, and 3 dismissed for misbehaviour.

SIXTH ANNUAL REPORT OF THE SOOCHOW
HOSPITAL OF THE CHINA MISSION.

Methodist Episcopal Church South,
October 1887–September 1888.

W. H. PARK, M.D.

More than the half of this Report gives exhaustive and interesting statistics regarding the work of the Opium Refuge. The Doctor tells us that out of 21,017 recorded out-patients to the Dispensary, 1,022 were opium-smokers, this giving a percentage of 4.25 %. This estimate, however, is regarded by the natives as "ridiculously small." "One man stated that he believed seven out of every ten men in the city of Soochow smoked opium—four habitually and three occasionally." This would represent upwards of 60,000 opium-smokers in this one city alone. The Doctor goes on to say he has often heard the woman's reply when asked as to her husband's occupation, "He doesn't do anything, he just smokes opium."

The following statistics are interesting, as they give a careful and methodical analysis of 349 cases:—

Opium Smokers among Out-patients, 349.

Health.

(Since they began smoking and by their own testimony).

Better	36
Same	86
Worse	227

Place where smoked.

Home	168
Shop	172
Home and shop	9

Percentage of Smokers,

5.4 %.

Kind of Opium smoked.

Foreign	331
Native	10
Foreign and Native	8

Number of Years smoked.

Greatest	10
Least	1 mo.
Average	9 yrs. 5 mos.

Average Amount each Day,

2.2 mace.

Reasons for contracting the habit.

Disease	172
Pleasure	177
Total	349

Grand total of patients visiting Dispensary 9,170. Dispensary Surgery 326 cases, Operations 31.

REPORT OF THE LAOLING MEDICAL MISSION.

Methodist New Connexion Missionary Society.

Dr. SHURESHALL tells us, "in taking a general retrospect of the past eight months' work we cannot fail to see many encouraging signs: with a widened experience of native habits and customs, a greater freedom in the use of the language, and increased facilities for administering medical and surgical aid, we may fairly anticipate extended usefulness in the future."

The attendances at the Dispensary during the eight months alluded to number 2,307, representing over 130 separate villages. "The number is steadily increasing week by week." Patients treated during journeys to the mission stations are estimated at 450, and with the fifty visits paid patients, make a total of 2,807. Two hundred minor surgical operations are equally recorded.

REPORT OF THE MEDICAL MISSIONARY
SOCIETY'S HOSPITAL IN CHINA,
FOR THE YEAR 1888.

Physicians and Surgeons:

J. G. KERR, M.D., J. M. SWAN, M.D.,
MARY W. NILES, M.D.

"The work of the Hospital has been carried on without interruption during the past year."

The records of hospital and dispensaries show an aggregate of 39,442 visits. The visits of out-patients to the hospital amount to 17,200. More than 6,870 individuals have been thus treated. The number of in-patients admitted was 1,324.

The list of operations is a grand one of 2,159, inclusive of lithotomy and lithotripsy 37, extraction of teeth 561, accouchement cases 42.

In reference to the cases of Urinary Calculus, 65 cases were under treatment, 24 of which were operated upon by lateral lithotomy with 5 deaths, and 13 by lithotripsy, all of which were successful. A number of circumstances combined to give an unfavourable record in the lithotomy operations,—not only was the year an exceedingly unhealthy one, "but the patients themselves were unfavourable subjects, and only urgent necessity justified an operation."

Combined lithotomy and lithotripsy.—The presence of a large calculus evidencing itself in a man at, 27, it was decided to break up the stone, so the usual lateral incision being made, it was seized with a light pair of lithotomy forceps, and held against the opening. An especially-prepared, pointed chisel was then held against the stone, and struck with a mallet, with the result of breaking off fragments weighing $3\frac{1}{2}$ ounces. The patient was dismissed cured three weeks afterwards. Attention is called to the use of the drainage-tube as being of great advantage, and to be regarded "as one of the most important improvements in the after-treatment of many cases of lithotomy."

Passing over notes of interesting cases, a case of odontoma is met with. "The patient was a man, about 25 years old, and the wisdom-tooth of the right side, lower jaw, was the one affected. It was extracted with much difficulty. The bony tumor surround-

ed the root of the tooth, which was firmly fixed in it. After drying, there was partial separation on one side, but the tooth did not become loose." Mr. HEATH, in his lectures at the Royal College of Surgeons, states, that only nine cases of this affection have been recorded, all of which were in the lower jaw.—*Lancet*, January 14. 1888. JORDAN FLOYD, F.R.C.S. Birmingham, gives one of the upper jaw.

The following is an abstract of the Report of the Hospital and Dispensaries:—

CANTON HOSPITAL.

	<i>Males, Females, Total.</i>	
Out-patients ...	13,785	3,415 17,200
In-patients ...	945	379 1,324
Surgical operations	1,513	616 2,159
Patients visited in homes ...	—	— 337
Patients seen on country trips ...	—	— 673

13TH ST. DISPENSARY FOR WOMEN
AND CHILDREN.

Out-patients ...	—	— 393
Surgical operations	—	— 20

YEUNG KONG—(DR. THOMSON).

Out-patients ...	—	— 5,787
Patients visited in homes ...	—	— 80
Surgical operations	—	— 284

SZ PAI LAU (CANTON) DISPENSARY—
(DR. FULTON).

Out-patients ...	—	— 6,070
Surgical operations	—	— 314

NODOA, HAINAN—(MR. JEREMIASSEN).

Out-patients ...	—	— 6,467
In-patients ...	—	— 234

SZ U DISPENSARY.

Out-patients ...	420	387 877
Surgical operations	38	24 62

P. M.

SOCIETY REPORTS.

The Shanghai Medical Missionary Association held its regular monthly meeting at St. Luke's Hospital on the afternoon of the 12th March, the Vice-President, Dr. BOONE, in the Chair. The meeting having been called to order, the minutes of the former meeting were read and approved.

Dr. GALE was then invited to read her paper on a case of "Obscure Brain Trouble," an account of which appears in the present issue of the Journal. In the course of the discussion which followed, Dr. BOONE commented upon the difficulty of diagnosing the disease, inasmuch as it had not come under the care of a physician, until after some weeks from the commencement of attack. Dr. REID, in remarking upon the pleasure with which he had listened to "this carefully-recorded and interesting case," understood that Dr. GALE was inclined to regard it as one of Cerebro-Spinal Fever, but considering we had only an imperfect history of the case from the parents to go upon, that no mention was made by them of any form of rash, and that cerebro-spinal fever is, as far as he was aware, not prevalent in Shanghai, he was rather doubtful as to its being a case of that nature. He had not seen the child, and seeing the unsatisfactory history for the three weeks of its illness, he was unable to form anything like a reliable opinion. He thought the convulsions were due either to some gastric or intestinal irritation, which, taken together with the vomiting, possibly marked the onset of some feverish attack, such as measles occurring in a weak and ill-nourished child; that the convulsions were followed by cerebral congestion, and by hemorrhage into the substance of the brain. He then referred to a case which, though not quite analogous to Dr. GALE's, was yet interesting as viewed alongside of it. A child of 11 years of age, suddenly one morning fell down and became semi-comatose; when seen in the evening was found to have paralysis of motion on the left side, arm and leg. She was given Santonine and Calomel, of each 2 grains; when seen next morning the paralysis had disappeared and she seemed almost well, and remained so until evening, when she again became unconscious, and seemed also to have paraplegia of the lower limbs. She vomited a good deal during the night, during which she brought up a large lumbricoid worm. Next day she remained unconscious with complete loss of sensation in both legs, though she could move them slightly. She was given an enema of castor oil and turpentine, and in the course of the afternoon passed another worm. She remained in this condition until the following day. A slight improvement being then noted, in the afternoon she was given a soap-and-water

enema, which had the effect of bringing away a lumbricoid worm 14 in. in length, after which she was able to get up and walk about, though still unable to speak; the day following she was almost well. The discussion upon the paper being ended, a patient was then brought in, examined and dressed for fracture of humerus. After sundry business matters had been transacted the meeting, with a vote of thanks to Dr. GALE, then adjourned.

9th April.

The Meeting having been called to order by the Vice-President, Dr. BOONE, the minutes of the previous meeting were read and approved. Dr. TA TING, a native graduate, a gentleman who had been educated under Dr. MCKENZIE, in the Viceroy's Medical School, Tientsin, was proposed for membership and duly elected.

Dr. BOONE then read a paper, entitled "Amputation at the Knee-Joint for Epithelioma of the Right Leg," October 29th, St. Luke's Hospital, Shanghai, a report of which appears in the present number of the Journal. It may be remarked, in connection with this case, that the method of procedure was an adaptation of STEPHEN SMITH'S, of New York, and an admirable illustration of its simplicity and effectiveness, the excellent stump it leaves for the adjustment of an artificial leg, and the maintaining, wherever practicable, of what have been considered the three essentials of amputation at the knee-joint—abundance of flap-material, retaining the patella, and accurate union of wound. A vote of thanks being moved to Dr. BOONE, and there being no further business, the Society adjourned.

PERCY MATHEWS, M.D.,
Secretary.

NOTES AND ITEMS.

MEDICAL MISSIONARY ASSOCIATION

MEETING AT SHANGHAI IN 1890.

The following is the list of those elected to prepare papers for the meeting, who have replied to the Secretary:—

Consenting to write:—Dr. KERR, Dr. J. C. THOMSON, Dr. ROBERT COLTMAN, JR., Dr. PARK, Dr. W. E. MACKLIN, Dr. H. T. WHITNEY, Dr. R. C. BEEBE, Dr. S. A. HUNTER,

Dr. K. C. WOODHULL, JOHN FRYER, Dr. LYALL, Dr. DOUTHWAITE.

Declining to write:—Dr. F. C. ROBERTS, Dr. D. D. MAIN, Dr. ARTHUR MORLEY, J. M. SWAN, GEO. B. CREWS.

Names of those elected who have not yet sent in their answers to the Secretary:—Drs. PORTER, MACLEISH, REIFSNYDER, NEAL, VON S. TAYLOR, PECK, MACFARLANE, ANDERSON, GILLISON, WENYON, MURDOCK.

An early answer from them will greatly oblige, as nothing further can be done in the way of arranging for the meeting until we know whether they will accept. Should anyone decline, we can then correspond with others with a view to obtaining papers for the meeting. Should any member be unable to attend, his paper will be read and a report of it published in the account of the proceedings of the Society.

The Members of the Committee on nomenclature will confer together: they will be glad to receive lists of terms, arranged alphabetically, suggesting terms that may be preferred to those now in use: these lists may be sent to Dr. J. G. KERR, at Canton.

It is hoped that the Chinese Medicines will be divided up among the writers, so that we may have some definite information about mineral, and *more especially* vegetable medicines, from reliable sources. It is suggested that all those whose names are down for one, and the same subject, would do well to correspond with one another, and arrange their work, in such a way as to obtain the greatest possible amount of light on the subjects to be dealt with.

Writers who may be unable to attend the meeting, are requested to send in their papers to the Secretary of the Association, Dr. M. GALE, Shanghai. The papers will be read at the meeting, and published in the report of the proceedings of the Association.

Should anything be remarkable regarding the editing of this number of the Journal, we humbly offer this explanation: the Managing Editor is taking his well-earned rest in Chefoo (and we are pleased now to have satisfactory news of his welfare), the weather has been very hot for griffins, and 'tis but the "prentice hand" who has collated *late copy*, met the printer's exigencies, and who now diffidently submits this issue of the Journal to its supporters.

AYER'S CHERRY PECTORAL.

Recipe:—

Morphiæ Acetate	gr. iii
Tinc. Sanguinariæ Canaden ...	dr. ii
Vine Antimony Tart. } <i>a a</i>	dr. iii
„ Ipecac. }	
Syrup Pruni Virg.	oz. iii

J. G. K.

THE POTATO-CURE FOR SWALLOWED FOREIGN BODIES.

Dr. SALZER, at a meeting of the Medical Society of Vienna, held January 11, 1889, stated that he had treated a six-year old boy, who had swallowed a small weight, a woman, who had swallowed a set of teeth, and a nine-year old girl, who had swallowed a nail, by the method advocated by Dr. CAMERON, of Glasgow, which consisted in feeding the patients for several days on nothing but potatoes. This treatment, which in all three cases was followed by success, is a method in vogue among the pickpockets of London, who swallowing their booty, live on potatoes until the stolen articles appear *per vias naturales*. — *Berliner Klin. Wochenschrift*, Jan. 28, 1889.

Caution is necessary in the use of ANISEED OIL, as several deaths have been reported from it in Japan, and cases of poisoning in Germany, where it is frequently given in bronchial affections. It is also used as an ingredient in prescriptions and in confectionery in Europe and the U.S. The genuine *Illicium anisatum* (on the Continent the *Pimpinella anisum*, grown in Germany and Austria, with an over-production of it in Russia) is adulterated with the bastard *Illicium Religiosum*, or "Skimi" fruit of Japan, which closely resembles the genuine, as seen by enclosed samples.

Quantities of the oil have been returned from Germany and England to China recently, we are told. The fruits, also exported for medical uses, are in China given in colic, constipation, hernia, lumbago, and in fevers of all kinds, and eaten as a condiment according to Dr. F. PORTER SMITH.

The export China Cassia Oil has also been found adulterated, up to 50 % with fat, oils, petroleum, etc.

MALARIAL ORCHITIS.

CHARVOT (*Lancet*) has recently described a severe and very painful form of acute orchitis, occasionally met with in subjects saturated with malaria, and probably due to the direct action of the malarial germ on the testicle. The orchitis appears during an attack of malarial fever, and often at night. In a few hours the testicle is greatly swollen and painful, but the disease does not reach its height for two or three days; it then somewhat slowly subsides. Both the body of the testicle and the epididymis are inflamed, and effusion into the tunica vaginalis occurs. Under full doses of quinine, pain and inflammatory oedema quickly subside, but the absorption of the exudate is slow and is followed by more or less atrophy of the secreting substance of the gland.—*Polyclinic*.

The proper thing to do for a case of *sunstroke* or *heat exhaustion* is to remove or loosen clothing about the neck; do not move unless hospital is near; throw buckets of water upon patient, or, what is better, rub down with ice. Get the bowels open: turpentine injections or croton oil, if not too much exhausted, or inject cold water, or one-half drachm of glycerine, into rectum. For the stroke, draw blood if pulse is full and strong. Antipyrin is of great value, not

only the immediate but subsequent result good. When he commences to recover, allow a bland diet. As one attack predisposes to another, patient should be careful in hot weather; go to mountains, if possible; keep the bowels open. To control convulsions, use morphine hypodermatically, or inhalation of small amount of chloroform.

PRESERVE YOUR INSTRUMENTS.

To preserve your instruments from rusting, immerse them in a solution of carbonate of potash for a few minutes, and they will not rust for years, not even when exposed to a damp atmosphere.—*Columbus Medical Journal*.

STRYCHNINE IN NARCOTIC INTOXICATIONS.

In a brief but valuable article in the *Practitioner* for December, Dr. G. A. GIBSON calls attention to the very great value of hypodermic injections of sulphate of strychnine in narcotic intoxications. The dose is from one-hundredth to one-fiftieth of a grain, and the immediate effects are a marked increase in frequency and regularity of breathing. In some instances cited by the author, of chloroform narcosis where breathing had been entirely suspended, it recommenced immediately after the injection.—*The Saint Louis Med. and Surg. Jour.*

Historic.—Napier's famous dispatch from India, announced his victory in one word, "Peccavi."—I have Sinned. Gen. de Bourmont's message to the French War Minister, in 1830, when the Dey of Algiers had escaped him after being taken, was, "Perdidi Diem,"—I have lost a Day. And a *reporter* tells us that Drake, when the ships of the Armada turned their sails, telegraphed to Elizabeth, "Cantharides."

‘Are you feeling very ill, Mrs. Blues? let’s see your tongue.’ “It’s no use doctor, no tongue can tell how bad I feel.”

BIRTHS.

At Chentu, Szechuen, June 27th, the wife of H. PARRY, M.R.C.P., China Inland Mission, of twin sons.

At Nankin, August 25th, the wife of ROBERT C. BEEBE, M.D., Meth. Ep. Mission (Central), of a daughter.

DEPARTURES.

From Amoy, April 17th, Dr. A. L. MAC-LIESH, and family, of the Eng. Presbyterian Mission, for Europe.

From Shanghai, May 25th, Dr. E. H. EDWARDS, wife and child, China Inland Mission, Taiyuen foo, for Europe *via* Canada.

From Yokohama, June 25th, Dr. and Mrs. L. H. GULICK, Am. Bible Society's Agency, Shanghai, for Oakland, Cal., U.S.A., per S.S. "Gaelic."

On the 5th August, for Chefoo, Dr. H. W. BOONE and family.

Reports from Dr. GULICK continue to be most encouraging. He has reached Oakland, and is finding great benefit from the treatment he is receiving at the "Rural Health Retreat" near St. Helena, Napa County, Cal.



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PHENACETIN has been recently introduced for use in the same class of cases as Antipyrin. It is a true antipyretic in doses of from three to eight grains. The effects are mild, the sweating very slight and no cyanosis has been observed, even after the repetition of several eight-grain doses.

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The China
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VOLUME III.

JANUARY—DECEMBER 1889.

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1889.

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OFFICIAL NOTICE.

To the MEMBERS OF THE MEDICAL MISSIONARY ASSOCIATION OF CHINA.

The December Number of the Journal now issued completes the third volume. A word or two of explanation is necessary. For the first year, and also during a part of the second year, the members of the Association paid two dollars as subscription to the Journal and two dollars annual dues as members of the Association. This sum was not only sufficient to meet the expenses of the Journal but to allow a small surplus, which was invested to meet such contingent expenses as might arise. Last year—before the present staff of editors were elected—this was all changed. No dues were collected from members, and they were informed that for the future they should receive the Journal for two dollars a year and be exempted from payment of their annual dues; in other words, the new Editors found themselves with the Journal on their hands,—costing just as much as ever to run, and with nearly one-half less income to support it. They assumed the charge for one year, and find, that although the expenses have not exceeded those of former years, the expenses exceed the income by more than one hundred dollars. Under these circumstances, the Managing Editor must decline the attempt to run the Journal on a less sum than the actual cost of publication.

The Editor will settle up all the accounts for Volume III, and he now resigns his position as Editor. The *only* way in which the Journal can be published for another year is: firstly, pay up your subscriptions—(only one hundred dollars has as yet been paid in for 1889); secondly, pay the subscription for 1890, *in advance*; thirdly, all members *must* be willing to pay one dollar a year Society dues. Please send in your subscriptions for 1889 and 1890 to MESSRS. KELLY & WALSH, LIMITED, and send in one dollar for dues to Dr. GALE, Secretary and Treasurer, Shanghai. The Editors, DR. LYALL, HODGE and MATHEWS, will then have sufficient money to conduct the Journal without running into debt.

THE

China Medical Missionary Journal.

VOL. III.

DECEMBER 1889.

No. 4.

DR. AYRES ON OPIUM SMOKERS IN THE HONGKONG GAOL.

The following are extracts from the Colonial Surgeon's Report for the year 1888, published in the *Hongkong Government Gazette* :—

“Table XIb. shows the number of opium smokers consuming one mace and upwards received into Gaol, their weight on admission and their weight in each week of the first month in Gaol or until their discharge.

“Table XIc. shows the number of opium smokers admitted to the Gaol Hospital and the diseases they were suffering from. There were no deaths among them, and no cases of cholera occurred among them, enfeebled though they are supposed to be by this said-to-be pernicious habit, though they had exactly the same diet as the other prisoners and were distributed among those that were attacked. The only cases worthy of note are, first, one who was 60 years of age, had been an opium smoker forty years—the longest time of all the 75 who came into Gaol—smoked 3 mace per diem, weight 85 lbs. on admission and the same after a month's confinement, though he was subject to the penal diet, the same as other prisoners; he was never on the sick list nor received any particular treatment to cure him of the habit.

“All opium smokers now are only under observation; unless there is special reason besides this habit they receive no treatment whatever; the habit is entirely ignored and they go to their work and diet same as other prisoners.

“The heaviest weight on admission was 133 lbs., lost 2 lbs. in the fortnight he spent in Gaol, was 58 years of age, 20 years an opium smoker, and consumed one mace daily.

“The greatest decrease in weight among the opium smokers was 8 lbs., and this case was never on the sick list. This man had been 15 years a smoker of one mace daily.

"The greatest gain in weight was 8 lbs. This man had been 10 years a smoker of $1\frac{1}{2}$ mace, had never been in hospital, so that there was only the ordinary diet to account for the increase.

"This habit in itself appears to me to be perfectly harmless. In conjunction with women, wine, late hours and gambling it is very possibly injurious, but in this case 'it is not in it,' to use a slang phrase, compared with tobacco, as while indulging in this 'pernicious' habit you must devote your whole attention to it and it alone. The opium hells of Europe and America combine more than one of these attractions as a rule. The great majority of opium smokers in China have this 'vice' only, and too much pity is wasted abroad which might well be spent at home. The 'poor heathen Chinese' affords a better example than most Europeans. It is only a small minority, even among the well-to-do, that are not frugal and industrious in their habits, and sober in their enjoyments though they are opium smokers."

The following is part of Dr. AYRES' report on the same subject for 1887. We give it as probably many members of our Association have not seen it.

"As usual there were no evidences of suffering from the deprivation of the opium-pipe, though opium in any form was carefully excluded from their treatment. The exclusion of opium is rigidly adhered to, unless the treatment of the disease imperatively demands it; this, however, did not happen to be the case with any of the opium smoking prisoners under treatment last year.

"I give the ages, consumption, and weights of the largest consumers received into Gaol. They were six in number, all had habitually consumed 4 mace, *i.e.*, half-an-ounce, of opium daily; the time they have been addicted to the habit of opium smoking is also set forth:—

Age.	Number of years opium smoker.	Consumption per diem.	Weight on admission.	Weight at end of 4 weeks.
—	—	—	—	—
*56	20	4 mace	110	106
*67	40	4 „	103	109
52	30	4 „	120	114
78	35	4 „	96	96
70	36	4 „	106	98
*72	36	4 „	75	80

"Those marked with an asterisk were under treatment for general debility; the others were under no treatment for other ailments. It will be gathered from these figures that the habit of opium smoking does not interfere with the digestive powers. These men all consumed an amount of opium equivalent in value to 30 cents a day, or \$9 per month. Therefore they must have been of a comparatively well-to-do class, and when at liberty could afford better food than

the diet of the Gaol Hospital, for in order to live well (for instance, as well as the best class of Chinese servants) it need not have cost them more than \$3 per month for food.

"Of the three not under treatment two decreased in weight, and the one who is 78 years old remained the same. A man of 78 that can digest the ordinary Gaol diet and keep his weight must have his digestive powers in excellent order.

"There were 78 opium smokers of one mace a day received into Gaol, of whom 17 were taken into Hospital, none of them having very serious complaints, as Table XIc. shows.

"Moreover, it must be remembered that opium smoking prisoners not under treatment have the ordinary rice-and-water diet one day every week, which would tend to decrease their weight. Notwithstanding this, however, most of those weighing under a hundred pounds remain of the average weight. The Chinese of the chain-gang are picked from the strongest of the prisoners, and their average weight is 110 lbs. It is only reasonable to expect that those who are above the average weight on admission should not add to that weight on a Gaol diet, which, though sufficient and wholesome, cannot be said to be fattening. These tables, which have been given for the last six or seven years with my Annual Reports, prove conclusively that the opium smoker can discontinue the habit at once without any detriment to himself, and that it is idle to talk of the suffering which the deprivation of the opium entails. I do not think the suffering attendant on that deprivation is more than that of a tobacco smoker, if so great.

"Opium smoking held forth as the Chinaman's greatest vice is certainly not to be compared in its evil effects with the European vice of spirit drinking, a habit to which the Chinese as a nation are not given. Instead of making such an outcry and wasting large sums of money in trying to reclaim the Chinaman, one cannot but reflect with how much greater advantage we might look nearer home and attend to our own need of reform in respect of intemperance."—*China Mail*, July 16th, 1888.

We publish the above extracts from Dr. AYRES' report, not because we think them of any special importance. His statements are so obviously one-sided and superficial that it is not likely that they will influence any but those who desire to be persuaded of the harmlessness of the opium habit. We simply wish to call the attention of medical missionaries to the fact that views so diametrically opposed to the experience of most, if not all, medical men in China who have any experience in the treatment of opium smokers, are year by year promulgated by the Colonial Surgeon of Hongkong. We very much desire that medical missionaries would utilize the *Journal* to thoroughly discuss the subject

of opium smoking from a scientific point of view. We are not specially anxious for papers simply denouncing the habit. About the morality, or rather the immorality, of the habit, none of us have any doubts. Everyone who knows anything about the subject cannot but condemn the habit as a vicious one, not only for its injurious effects upon the habitué himself, but also for the misery it brings upon others who are dependent upon the opium smoker for the necessities of life. Even the "heathen Chinese" look upon the opium smoker with contempt. Dr. AYRES may possibly consider that as a medical man he has nothing to do with the moral aspect of this subject, but still less is it the duty or business of a member of the medical profession to try to bolster up any system of dissipation even though he may not consider it injurious to health. It may be Dr. AYRES regards his productions as thoroughly scientific, and although we may have a different estimation of them, yet we must give him due credit and accept his opinions for what they are worth.

His opinion is, stated briefly, that the opium habit is in itself harmless, and that the opium smoker can be deprived of the drug at once without inducing any suffering. The reasons he gives for his belief are not many and are not very convincing. He pins his faith on the results obtained by weighing his prisoners on their admission to gaol and once a week for the first month afterwards. As a matter of fact, the statistics thus obtained do not teach us much, view them in any way you choose. Much more data are required concerning each individual, as, for instance, his size, and his material circumstances, before any very reliable conclusion can be drawn from them. At the most, they only prove what is already well known—that if a man is able to obtain good, nourishing food, opium, in moderate quantity, does not in many cases reduce the weight of the body, and that the opium habit can be given up at once without much danger to life or health. This, however, is not incompatible with the fact that the deprivation of the accustomed stimulant is followed with a good deal of suffering and prostration. It is surely a well-recognized fact, that if a man be accustomed to take daily stimulants of any kind, their withdrawal is followed by more or less depression or exhaustion for a greater or lesser time. Must an exception to this rule be made in favor of opium? It is probably true that twenty or thirty years ago many physicians had exaggerated fears of the dangers which would follow the sudden deprivation of opium in the case of opium habitués. In those days the profession generally also considered it dangerous to withdraw too suddenly alcohol from chronic inebriates, and the principles physicians were taught on which to treat alcoholism they applied to the treatment of opium smokers. The theory of there being special danger in withholding alcohol from the subjects of alcohol poisoning, has been exploded long ago. So in China for the last ten or fifteen years, and how long before I do not know, medical missionaries, almost without an exception, have treated their opium patients by other means than by

gradually-decreasing doses of opium. That there is danger to life in some cases, however, has been proved by stern fact. Dr. EDWARDS, of Tai-yuen-fu Hospital, reported in 1887 two deaths of opium habitués, treated on the "no opium" plan. If the Reports of the various Chinese Hospitals were searched, records of other fatal cases would doubtless be found.

Dr. AYRES' experience is very remarkable. In his report for 1887, he says that "there were no evidences of suffering from the deprivation of the opium pipe," and again, "I do not think the suffering attendant on that deprivation is more than that of a tobacco smoker, if so great." In his report for 1888, he considers that while opium smoking is harmless in itself, yet in conjunction with various other immoral habits it may possibly be injurious, but "in this case 'it is not in it,' to use a slang phrase, compared with tobacco." Excessive use of tobacco is credited, no doubt, with the production of functional disturbances of various organs of the body, but that tobacco as smoked by the Chinese can be justly compared, in its effects on the body, with opium smoking, will be news to most medical men. Chinese tobacco is comparatively mild, and the Chinese smoke but little of it at a time. Even its effects upon the body as smoked by Europeans seem to be very transient and are quickly overcome. The action of opium on the body is much longer continued, and one would naturally expect that its effects would thus be correspondingly greater. Moreover, most opium smokers are also tobacco smokers, and the two habits combined should surely produce some effects. Yet Dr. AYRES sees "no evidence of suffering from the deprivation of opium" and none, we presume, from tobacco also in the case of tobacco and opium smoking habitués.

That opium smoking can be as easily given up as tobacco smoking is certainly not proved by the statistics that Dr. AYRES gives. We are told that 12 out of 72 opium smoking prisoners (the other 3 men were discharged at once, and need not be reckoned) required to be taken into the hospital for special treatment on being deprived of their opium. The habit being "harmless," we can conclude that the reason for their admission to hospital was the effect produced by the deprivation of the drug.

Tobacco smoking prisoners are also, I presume, deprived of their "weed" on admission to gaol, and if the suffering attendant on the deprivation of tobacco is as great as, if not greater, than that following the deprivation of opium, we would expect to find that as high a percentage of the tobacco smoking prisoners required medical care on account of the sudden withdrawal of their accustomed nicotine poison. Indeed, a much larger percentage of this class should need hospital treatment, because tobacco smoking, according to Dr. AYRES, is more frequently associated with really injurious habits than is opium smoking. But so far as we can gather from consideration of the statistics, not a single prisoner required medical care on being deprived of tobacco. Consequently, we may

conclude that Dr. AYRES' comparison between tobacco and opium smoking is a mere assertion, the accuracy of which is entirely contradicted by his own statistics.

We have had a good many hundreds of opium smokers pass through our hands, and, so far as our experience goes, there is no great danger to life from cutting off opium at once. It is followed, however, in the large majority of cases, by great depression and restlessness, diarrhoea more or less severe, nausea, sometimes vomiting and anorexia, sleeplessness which is sometimes difficult to overcome, seminal emissions, and a general feeling of misery and wretchedness which is aptly called the "horrors." In some cases of specially debilitated subjects stimulation is required. In about a week they begin to pick up, the appetite gradually recovers and the craving for opium disappears. Sometimes the nervous debility continues for many months after giving up opium, showing itself in a low state of general health and in inability to do any work requiring an effort.

What is maintained, however, is not that an opium smoker cannot give up opium without danger to life, but that few men who have become opium habits can give up the habit. Opium quickly enslaves a man, and the condition of paralysed control is soon induced, so that few men, no matter how sincere they may be in their desire to give up the habit, have the strength of will necessary to keep away from the drug. Many who have sought help in the hospital have relapsed sooner or later on returning to their homes. Some take to chewing opium-ashes, others resort to "anti-opium powders," which contain morphia. My assistants reckon that not more than 20 per cent of those who have given up opium under our supervision have kept from relapsing on return to their former environments. This estimate, I believe, is quite large enough.

Dr. AYRES considers "the habit in itself to be perfectly harmless," and it is, according to his 1887 report, "not to be compared in its evil effects with the European vice of spirit drinking." The harmless habit apparently has some evil effects, but these he does not indicate. Certainly we could hardly call the habit harmless, seeing that about 17 per cent of his opium smoking prisoners, most of them in adult life and probably well fed, required special medical care. Be this as it may, opium smoking is certainly not harmless in China. Why it should be harmless in Hongkong is beyond our comprehension, and Dr. AYRES does not try to enlighten us.

To get a fairly accurate idea of the evil effects of opium smoking it is necessary that one's attention should not be solely confined to any single class of opium smokers. Practically opium smokers may be divided into two classes for consideration—those in well-to-do circumstances and those belonging to the laboring classes. If the evil effects on the former class be only considered, then grossly one-sided statements will be made. On the other hand, a true description of the terrible evil inflicted by the habit on the laboring classes may not be quite

accurately applicable to opium smoking as observed among the well-to-do. Perhaps the whole gist of the opium controversy lies in a want of recognition of these facts. Like drunkenness, the curse of the habit falls with greatest severity on the working classes. It is impossible to overstate the evil of opium smoking among the poor. One mace or a mace and a half is about the average amount smoked per diem, and it takes fully a half of a laborer's wages to obtain this amount. In the laboring class we include farmers, artisans, boatmen, burden-bearers—in fact, the largest proportion of the population of China. To these men the opium habit soon brings poverty in its train and a weakened capacity for labour. The physical evils attendant on the habit soon become apparent enough, and these also are by no means slowly developed.

The well-to-do smoker is, as a class, less injured physically and mentally by opium in moderate quantities. Among this class it is not difficult to find men who have smoked two or three mace daily for many years with little apparent physical deterioration. But it is also not difficult to find among this class opium sots who are physical, mental, and moral wrecks. In China, as elsewhere, very different effects of the habit are occasionally met with. In some cases, three and four mace of opium have been smoked daily for many years with apparent impunity. In other cases, in equally good circumstances, a few years' consumption of a mace and a half daily has resulted in ruining the physical and mental organism.

The moral evils resulting from indulgence in opium are very apparent and well known, but it is not our intention to consider them at present. The well-to-do smoker does not escape moral deterioration, though, of course, he is not exposed to certain temptations to which his less fortunate brother is liable in order to provide the drug to satisfy the craving. Unlike Dr. AYRES, who says that opium smokers in China practise this vice only, intelligent Chinese are in the habit of tracing the first steps in the downward career of Chinese prodigals to indulgence in opium or in gambling.

It is noticeable in such productions as we have been criticising, that the writers, no matter how positive they may be in their assertions, generally end by making explanations which show signs of weakness. Formerly we used to be warned not to confuse opium eating with opium smoking. The former habit was said to be decidedly injurious, whereas opium smoking was harmless. Of late years this distinction is not so frequently heard of. This year Dr. AYRES has a new explanation to offer. It seems that "opium hells" are now to be found in many European and American cities, and that these places present other attractions to their patrons besides the opium pipe. Dr. AYRES is therefore careful to explain that while opium smoking in itself is harmless yet in conjunction with various other vices, which are specified, "it may possibly be injurious." The warning is timely, for any home physician who may have to treat an opium smoking fellow-

countryman will assuredly not travel so far in search for the cause of the functional or organic disorders of his patient. That Dr. AYRES' explanation will be altogether satisfactory is open to question.

Perhaps we should not leave Dr. AYRES without trying to relieve his anxiety of spirit with reference to the amount of pity which is wasted by certain classes in Britain on the "poor heathen Chinese," which could be better spent at home. It is a common saying, which we believe to be true, that it is just those men whose sympathies can extend to such miserable objects as Chinese opium smokers, who are foremost in every benevolent endeavour to relieve the misery of unfortunate fellow-countrymen at home; and, inversely, those who care nothing for the "heathen Chinese" or any other heathen, are not generally specially distinguished for their philanthropy at home or elsewhere. On this point, therefore, Dr. AYRES need not be unduly anxious. Besides, there are other people, not so far distant from China, who in their own way are helping the Chinese to get rid of their opium smoking habits. Some of them are even found in Hongkong, notwithstanding Dr. AYRES' annual pastoral on the harmlessness of opium smoking. Their method is to push the sale of "anti-opium powders," containing morphia as an infallible remedy for the opium craving. Would Dr. AYRES not leave the home-folks alone for a little and turn his attention to those misguided reformers near his own doors? In this work he would command the sympathies of all of us, for although we think opium smoking a vice, yet most of us are ready to acknowledge that morphia eating is decidedly worse.

A. L.

MEDICAL MISSIONARY WORK IN FOOCHOW.

By H. T. WHITNEY, M.D.

II.

After the death of Dr. Osgood, August 17th, 1880, the writer was called to take charge of the Ponasang medical work. From the March previous, owing to Dr. Osgood's many duties and failing health, we had taken charge of the dispensary, helped in the hospital, and assisted in preparing his Decade Report, to enable him to give more time to the Anatomy. The full charge of a developed work, however, was undertaken at some disadvantage, as my previous three years

in China had been spent in Shaown, where the Mandarin language is the one in general use, and the few months that we had been in Foochow was of little benefit in speaking the Foochow language. But as Dr. Osgoon's first assistant could speak a little Mandarin, we managed to get on, using him as interpreter. In 1881 a new dispensary was opened in another suburban village called Watergate, and about one half-hour's walk from the hospital. This increased both the dispensary and hospital patients, so that the Tenth Report, June 1st, 1881, records a total of 8,651 patients and 514 operations.

The Eleventh Report gives a total of 8,176 and 527 operations. The enlargement of the work necessitated increasing the number of students, and seven were under training at this time.

The Twelfth Report, January 1st, 1884, covering 19 months, gives 14,446 patients and 845 operations. During the summer of 1883, owing to much sickness, including also a cholera epidemic, dispensing was carried on in three other places away from Foochow, which accounts for the large increase of patients. The students had been temporarily increased to twelve, including four young ladies in the Seminary.

The Thirteenth Report gives 3,506 patients and 62 operations. The cause of this decrease was owing to several reasons. The Opium Asylum had been turned over to Dr. CHANG, and all the dispensaries closed but one in anticipation of the writer's returning to the U.S., and the main part of the work left to native assistants. This year also occurred that memorable event—the French bombardment of the Foochow Arsenal—which turned Foochow into entire confusion; thousands escaped to the country, many foreigners left the port, and business generally was interfered with. For a time also no foreigner was allowed to venture among the people so far as Ponasang; but though the assistants kept at their post and treated many soldiers, yet the effect was to diminish the average attendance at the hospital and dispensary.

The Fourteenth Report gives 3,864 patients and 425 operations. The work this year (1885) up to November was under the medical care of Drs. ADAM and RENNIE, who assumed charge in February 1884. The number of patients had increased over 1884, owing to the subsidence of the Franco-Chinese war troubles, with an increase of soldiers over the number before the French trouble, and the return of the people to their homes. Another severe cholera epidemic prevailed during the summer and autumn of this year.

The Fifteenth Report gives a total of 8,266 patients and 521 operations. This Report covers 16 months and also includes 1,070 treated during a tour in the Shaown field. Also May 23rd, 1886, the Foochow Native Hospital was burned, which materially increased both in and out patients.

The Sixteenth Report, carrying the work to the end of April 1888, gives 5,073 patients and 490 operations. This Report records the transfer of the

dispensary to the hospital, building a new physician's residence nearer the hospital, and the combining of all the medical work, except bedside practice, under one roof, thus saving expense and the time and strength of the physician.

The Seventeenth Report brings the work down to April ultimo. In October 1888 we removed to Shaowu, leaving this work in charge of Rev. G. H. HUBBARD and three native assistants. Arrangements were subsequently made with Drs. RENNIE and ADAM, Community physicians, for semi-weekly visits to the hospital. During the eleven months covered by this Report there were 318 inpatients, 3,756 outpatients, including return visits, making 4,074 in all, and 551 operations. In the autumn of 1884 Miss Dr. WOODHULL and sister, of Brooklyn, N.Y., were appointed by the American Board to come to Foochow and take up medical work among women and children. They reached Foochow at the end of November 1884, and Dr. WOODHULL soon found plenty to do, and even more than she ought to do, in connection with the study of the language. She located in the city, some two miles from the Ponasang work. Native premises were secured and temporarily fitted up for a hospital and dispensary, where she has had an increasing number of patients each year since and quite a large obstetrical practice besides—a kind of work within the city that has been a great help to the religious work. Dr. WOODHULL has several lady students under training, which it is hoped will be of considerable help to her soon. The religious influences brought to bear upon the patients is of the best kind, and much good has already resulted from this branch of the medical missionary work.

We have now taken our readers rapidly over a period of 19 years of steady medical missionary work at Ponasang, including a reference to the first six years of opening work by Mr. MELTON, of the Church Missionary Society. A great deal more might be written, but perhaps this will suffice to show in a general way the opening medical work in Foochow, by the Church Missionary Society, and the subsequent resumption and continuation of it by the American Board.

To make the history complete we need an account of the work done for women and children by the M. E. Mission, and the general medical work of later years done by the Church Missionary Society. It is hoped that Miss Dr. CARLETON and Dr. TAYLOR will early favor your readers with this complementary history.

THE OPIUM HABIT.

“This habit in itself appears to me to be perfectly harmless.”

See Colonial Surgeon's Report for 1888,
in *China Mail* of July 15th, 1888.

Dr. AYRES, Colonial Surgeon of Hongkong, has the unenviable notoriety of standing almost, if not entirely, alone in his opinion of the “*perfect harmlessness*” of opium smoking, one of the great curses of China. Were it not for the influence position gives him, his opinions might be passed in silence as “perfectly harmless,” but since position gives authority it will not be amiss to note some of the evils of the narcotic drug which are plain to the eyes of everybody but those of Dr. AYRES.

We enumerate some of the direct and indirect evils of opium smoking :—

1st.—A poison like opium, when daily received into the system, permeates the blood, the nervous system and all the organs, exerting a morbid power in proportion to the amount imbibed and the susceptibility of the individual.

2nd.—Opium smoking vitiates the action of the nervous system in its relations to the physical, intellectual and moral nature of man.

3rd.—The opium habit causes torpidity of the bowels, including of course torpidity of the stomach and liver.

4th.—Opium smoking is attended with sallowness of countenance and loss of flesh, the results of injury to digestion.

5th.—Opium smoking masks the symptoms of disease in its early stages.

6th.—Opium smoking aggravates disease in its advanced stages and counteracts the effects of medicines.

7th.—Opium smoking shortens life.

8th.—Opium smoking wastes the time and money of the smokers and brings poverty and want to the family.

9th.—Opium smoking causes distress of mind to parents, to wife and children.

10th.—Opium smoking favors suicide, because it puts the poison always within reach of those who, in fits of anger or despair, wish to end their lives.

11th.—Opium smoking holds a man in the chains of a most abject slavery. Whatever else is neglected, the imperious craving for the drug must be obeyed and that twice every day.

12th.—Opium smoking causes laborers to lose their situations, and is an obstacle to further employment. On the cruisers employed by the Customs to prevent opium and other smuggling, instant dismissal follows detection of any of the men in smoking opium, whether it be on or off duty.

13th.—Opium smoking wastes the land, capital and labor of a nation and therefore impoverishes it.

14th.—But above and beyond all opium smoking deteriorates the morals, hardens the conscience, destroys natural affection, and in the end centres all there is left of the man on the gratification of his morbid appetite.

15th.—The opium habit therefore not only counteracts all moral improvement in the individual, but absolutely disqualifies him for being associated with or taking part in any of the grand schemes now in operation for the moral and spiritual elevation of the race. By common consent of all missionaries he is excluded from church membership.

J. G. K.

CANTON, August, 1889.

NOTES ON SOME OF THE RARER CASES AMONGST CHINESE.

By E. T. PRICHARD.

Scarlet-Fever.—In your last issue, Dr. HODGE seemed wishful to elicit expressions of opinion relative to the possibility of foreigners receiving the infection of scarlet-fever from Chinese sources. The following notes will indicate my own convictions on the subject.

In the spring of last year I suffered from an attack of scarlet-fever. Three days previous to the symptoms of invasion becoming manifest, I was called at night to see two somewhat anxious cases. The second was a midwifery case, in a Chinese family, in which operative interference was rendered necessary, on account of there being a transverse presentation of the child, which had not received proper attention. It was morning before I reached home, and there seems to me little doubt but that the scarlatinal infection came from some Chinese source that night, taking effect the easier on account of my somewhat exhausted condition.

One of the two foreign patients (a little boy $2\frac{1}{2}$ years of age) with scarlet-fever, who I attended this spring, probably caught the infection from Chinese. It was the malignant form and proved fatal.

It will be more satisfactory, however, to refer to cases amongst the Chinese themselves. At the early part of last May I was asked to visit a Chinese family,

in which two of the children were sick with fever and sore throat. I was soon able to satisfy myself of the presence of scarlet-fever in the younger girl, and to infer it in the elder one, where the rash was so indistinct as to be no safe guide in diagnosis. The angina, however, was very severe, accompanied by high temperature and rapid pulse. No time was lost in acquainting the family with the highly infectious character of the fever. The father and third child consequently removed speedily to other quarters. Soon afterwards I went down to Tientsin, to attend our annual meeting. On my return, a few days later, I learned that the third child went back home during my absence, had taken fever, was dead and buried. A Chinese doctor was in attendance, but from the resemblance which the attack appears to have borne to the other patients affected (fever, sore throat, and rash being all present) it is almost certain to have been due to like causation.

The father also fell a victim to the fever, and was visited from here. It ran a mild course, but was followed by dropsy, which gave some little trouble.

Desquamation was abundant in the father and younger girl. It was but slight and partial in the elder one. In this last case the throat symptoms formed the prominent feature, and were attended with delirium.

The patient has since been under treatment for the resulting ear trouble.

In concluding the notes on these cases, it may be well to state how I was subsequently able to trace the possible conveyance to a foreign child of some of the germs derived from this very source.

Whilst I was still attending the father, a physician in Peking mentioned to me some facts about a case of fever at the Western Hills, which had been diagnosed as scarlet-fever, and that a foreign child residing at the same place had probably thus received infection. Upon enquiry, it transpired that the Chinese child, with its mother, had been present at the funeral of the little boy previously referred to, and had gone almost immediately afterwards to the hills, where the child sickened in about three days after the funeral. The mother was in foreign employ, and the two children played together.

Rickets.—Dr. PALM, now at home in England, but for many years a Medical Missionary in Japan, is investigating the ætiology of Rickets. In order to supply him with more material than could be provided by my own limited observations, I communicated with one or two physicians in N. China, who have had the most extended medical experience. The resulting reports were to the effect that they had never met with any well-marked cases. Occasionally we find one included in the hospital lists of medical and surgical affection, which reach us from time to time. I am glad to avail myself of the opportunity, through the medium of this Journal, of seeking wider information regarding the existence of Rickets in China.

Myxœdema.—Not having happened to see any reference to a case of Myxœdema amongst the Chinese, I take the following one from my note-book, as probably coming under that designation, though not by any means a typical case. The fact that the woman was only seen once, in our out-patient clinic, accounts for the absence of some desirable particulars.

Patient was 35 years of age, and had given birth to eight children. Present symptoms had been observed to come on after the birth of the last child, about a year previously. Expression of face was sad and somewhat dull. There was deep red colouration of cheeks, extending back to the ears, and finishing abruptly beneath the orbits, contrasting markedly with the rest of the skin. Speech was slow, and mental processes partook of the same character. There seemed to be a sort of consciousness of deficiency in adequately expressing herself. Locomotion was awkward, but nothing more than needing apparently a little consideration. Hands were slightly swollen, but seem to have been worse than just at the present time, when patient states she was clumsy in wiping and handling things. Face was but slightly œdematous. The skin, though dry, was not rough, except on arms, which was probably from exposure, however. The presence of the thyroid gland was not distinguished by manipulation of that locality. There was some tumefaction in supra-clavicular region, specially in the right side.

Absence of Vagina with Menstrual Retention.—Patient is a girl of 16 years of age, and appears to have menstruated about 10 months. She was brought to hospital about a month ago, suffering great pain. Upon examination the external parts proved to be imperfectly developed. The uterus was very firm, and distended to about the size of a four months' pregnancy. There seemed to be sufficient tissue present between the bladder and rectum to warrant puncture of the uterus being attempted by passing a trocar and canula between these two viscera. This plan was accordingly carried out, and a considerable quantity of the retained menstrual secretion was thus gradually evacuated. The patient has returned home to consult with her friends. In the event of their desiring further operation, we propose to try and make a false vagina. The girl is already engaged to be married, but it is scarcely likely that we shall be able to recommend fulfilment of the contract.

THE AIM AND WORK OF THE MEDICAL MISSIONARY.

By A. FAHMY.

In the noble outburst of Modern Missions, the Medical agency has been assigned a most important place, and rightly considered necessary and indispensable in the evangelization of the world.

Thus it is at once evident that the first *aim* of the Medical Missionary should primarily and essentially be the evangelization of the people amongst whom he is sent to labour. And Medical Missionary work has generally and always been regarded as important, successful, and warranted in so far as it was auxiliary to and helping on the spread of the Gospel of Christ. This being the spirit in which the Church societies send out their men, and also the motive which is possessed, or at any rate should be possessed, by the representatives of the Church, it follows that the prime and grand aim of the Medical Missionary is to diffuse the knowledge of the Truth wherever he may be. "Jesus went about all Galilee teaching and preaching the Gospel of the Kingdom, and healing all manner of disease." In this we plainly perceive that the Medical Missionary is a double functionary—a Christian healer and teacher. He combines in himself at one and the same time two of the noblest functions ever man cherished or dreamt of. He can soothe body and spirit alike. He can hush physical as well as spiritual fear, and as such will be readily trusted and confided in by his fellowman. Thus it is not for the advancement of science and art, nor yet is it for mere philanthropic ends that the Medical Missionary exists, and derives his high value and importance in the Christian world. True that to be the means in GOD'S hands of restoring health or alleviating pain and suffering is alike Christlike and noble, yet this is by no means the grand aim of the Medical Missionary. Our grand aim, as I have already stated, is primarily and supremely the Christianising of the thousands who yearly pass through our hands. And it may also be asserted that in proportion as our Medical work becomes a direct help in winning men to Christ, just in the same proportion is it successful and worthy of the help of all Christians.

But the Medical Missionary does more than that—he acts also as a pioneer by paving the way for the Truth. Men are then more ready to lend the hearing ear and the understanding heart, and there is less opposition, less suspicion, less distrust.

But while the Christianising of the heathen is the main aim of the Medical Missionary, there yet is a secondary aim, but also a Christlike and almost equally important aim.

This other aim is the *declaring* to the heathen world the philanthropy of Christendom. For this we have for a warrant our LORD'S noble example—"Jesus went about doing good" and "healing all manner of disease." We have also the present enlightened love of man to man. True that the Radical Darwinians condemn *that* philanthropy which is practised under the form of public benevolence, and even deny all duty of relief on the part of communities and individuals alike. Nay more, they declare that private charity is dangerous and irreligious. They tell us that "since nature is charged with governing and punishing, it should be a very foolish and misplaced ambition to pretend to put ourselves in her place, and take upon ourselves the odium of execution." Now, it is evident that such a view is, at least from a Christian standpoint, erroneous and fallacious. Thanks to our Christianity, which makes it binding on us "to love our neighbour as ourselves," and "to have charity toward all men."

But there yet remains another, also a secondary aim—I mean *stamping out Quackery*. To appreciate the value of this aim, it is only necessary that you should have some knowledge of the existing deplorable condition of the heathen world as regards the science and art of Medicine, to say nothing of Surgery. But why should we aim at stamping it out? There are many reasons, one only should I mention here, namely, that by stamping out quackery we are really preparing the way for the reception of Gospel Truth, because thereby we are undermining and supplanting superstitious beliefs, and striking at the very root of priestly power and pretensions. The gods also lose much in the contest; they lose that usurped prerogative that has been assigned to them from ages immemorial. In the barbarous ages, and among many races at the present time, *e.g.*, China, man has attributed all diseases to the influence of evil spirits, and sought by various means to ward off or lessen their injurious and malevolent actions. Now, the controlling of unknown powers has always been a matter which ordinary mortals with average ability could not successfully attempt. Hence arose a class of clever men, and these were the priests. They supplied charms and potions, and made use of incantations, not only to cure but also to prevent disease. Hence the great influence of the priests. Remove quackery and you snatch the sceptre of power and authority out of their hands.

I shall now proceed to the consideration of the second part of my subject, namely, the *work* of the Medical Missionary, *i.e.*, the manner of carrying on his medical and spiritual work.

The Medical Missionary having obtained some knowledge of the language of the people amongst whom he is to labour, he now proceeds to establish a dispensary, or a dispensary and a hospital combined, or else he may choose to act as an itinerant Medical Missionary.

As to itinerancy we have every reason to believe its inadequacy and unsatisfactoriness. If the idea originated in the Great Physician's example, it

was wholly erroneous and fallacious. The Christian physician cannot, as the disciples of old, work out miracles or claim supernatural powers of healing. He acts in accordance with fixed laws and established principles. He cannot say "Thy faith maketh thee whole," nor, with one word of authority, say "Arise and walk." He must trace and discover the cause of the disease presented to him; he must find the connection between cause and effect before he can successfully treat his patient. In short, he must act deductively and not inductively or empirically, far less without regard to either method can he rationally afford relief. By a process of exclusion alone can he arrive at a definite, or at any rate probable, conclusion. And so the treatment must be causal, systematic, as well as symptomatic.

Thus, then, if we cannot cure disease after the same fashion as the Great Physician and the early disciples, it seems to me that itinerancy is in great measure labour lost. The amount of good done is small and far between. There is hardly any known diseased condition of body, worthy of the name, and requiring the physician's help, which could be cured by one or two doses of drug, or a passing hurried glance from the physician. Moreover, surgical operations, even of the simplest, may be said to be in most cases out of the question, *i.e.*, they could not be reasonably undertaken. He may give a Gregory's powder or extract a tooth, but he can't, considering the short time he has at his disposal, stop to treat even "a cough" or "extract a cataract."

Then again, from a pecuniary point of view, itinerancy is far more expensive, and involves great wear and tear of body and substance.

A fixed locality, then, which should be as central as possible, is, it seems to me, the best policy, even from a mere professional point of view.

But our aim and object in labour is, as we have already said, essentially and supremely a Christian one—I mean the winning of our patients to Christianity. And a fixed station is precisely what we require to meet our object. Opportunity is then given to the crowds of human souls that often swell our waiting-rooms, seeking our physical help, to hear more frequently and quietly things new and old regarding GOD'S love to sinful man. And let me emphatically remark, that of all others the *Inpatients* may be considered as the possible fruits of our labours.

But an occasional country tour has certainly its value, if not for the purpose of healing, at least for making the acquaintance of our old patients, and exhorting them not to forget or forsake in the day of their strength what they heard in the time of their sore need and suffering.

So much, then, for the value of a fixed station. Now, there are other points of importance equally deserving notice; 1st, the use and value of a native evangelist and students.

The *Native Evangelist* should give up all his time and energy to the systematic teaching of the inpatients, as also to the *regular* preaching in the

Institution. He should also be ready to visit patients at their own homes, if their abode is within a reasonable distance. But the Christian work should on no account be left entirely in the hands of the native Evangelist. The Medical Missionary should himself take part in all the varied departments of the spiritual work, and more especially in personal dealing with the patients. The inpatients afford him the best opportunity. The outpatients, on outpatients days, can only be dealt with, as proved by experience, by the Evangelist himself as well as by the Clerical Missionary,—and happily missionaries are now sent in twos, so that wherever you have a Medical Missionary you have also a Clerical Missionary.

But the students should also take a practical part in the evangelistic work of the Institution. By the patients they are usually looked upon as second to none but the doctor himself, and hence is the value of their ministrations. They could be made to take part in the public services, but more especially in ward teaching, where they can feel themselves more at home.

All that I have just said of students implies that I took for granted that they are Christians. And none but such should be admitted as students. The age is also a matter of some importance. Eighteen should be, in my opinion, the minimum limit. The reason for this is quite obvious,—if admitted younger they are less likely to appreciate the importance and gravity of their calling and also less likely to be of much service in helping in the spiritual work of the hospital. Moreover, since their term of study is fixed for four years, it would be unwise sending out too young fellows, with all the grave responsibilities of a physician, to start practice on their own hook.

Another question, also relating to the students, is “the *nature and extent* of their medical course.” In considering this important question, due regard must be had alike to the heavy duties of the Medical Missionary, which demand almost all his time and energy, and to the little spare time of the students who are usually kept pretty busy while the physician is in the hospital. Besides, they too must have a little time for rest and physical exercise after their daily practical duties are over. Bearing this, then, in mind, and also remembering that their term of study extends only to four years (and it is exceedingly difficult getting men to sign an “*ioh*,” or agreement, for a longer period) we are now in a position to determine the *nature and extent* of their course of study.

To begin with, we have not the means for teaching them practical anatomy, except through the medium of diagrams and manikin; nor yet do we possess the materials and the other requirements necessary for teaching practical pathology, except indeed it be by the aid of microscopic specimens or preparations.

Again, if practical anatomy could not, as we have just stated, be taught, then minute and thorough lectures on descriptive anatomy are not, in my opinion, of much value to the students. And if the student did not know practical anatomy, *i.e.*, if he did not dissect the human body, so as to see for

himself the arrangement and relations of the various structures, he could not possibly perform major and many minor surgical operations, and therefore he does not require to know much of operative surgery. What I have just stated demonstrates at once that in certain departments, at least, we have to be selective and superficial in teaching.

The other remaining subjects, which go to form an *ordinary* medical course, may be entered into more or less fully.—physiology, chemistry, materia medica and therapeutics, as well as the practice of medicine and obstetrics, should, I think, be thoroughly taught.

Before dismissing this question, allow me to mention one thing more, namely, "*Systematic Examinations.*"

To ensure that what we teach is alike appreciated and assimilated by the students, we ought, in my opinion, to enforce regular examination, not in the shape of professional examinations, but examinations on the subject or subjects on which they are receiving lectures. Thus, if they were examined say three times on each subject, that ought to suffice. Extensive and comprehensive examinations on three or four subjects at a time, such as we have at home, will not, I think, be practicable among mission hospital students. Far less is it practicable to enforce, as has been suggested by certain friends, a "combined system of examinations," to which all the students of the various hospitals must submit themselves at various stages of their studies, and by passing which examinations they shall be entitled to a medical diploma.

Again, such a system, if adopted, would unnecessarily increase the amount of our labour, as each of us would wish his students to creditably pass their examinations. We would have to act as teachers and tutors alike—as tutors in order to "coach" them up, so as to minimise their chances of failure. Moreover, in order that such a system prove successful, certain "text-books" will have to be universally adopted; and this would at once make us servile to the opinions and teaching of one writer, and, in fact, we would cease to act as lecturers.

Such a system of examinations, therefore, should, in my humble opinion, be left to regular medical institutions, such as there are in Hongkong and Canton.

Now, to go back to a hospital's evangelistic work, allow me to suggest that there should be a colporteur alike to sell books to the patients and follow up cases in the country. That method I find very valuable in connection with the Chiang Chiu hospital work.

In conclusion, let me ask whether we can produce proofs to show that, by attending to the spiritual welfare of our patients, we do not neglect their bodily ailments? In reply, I humbly say that, proofs positive may easily be obtained by examining the records of cases treated in mission hospitals, and also by comparing the yearly reports of missionary hospitals with those of non-missionary hospitals as to the amount of solid work done and good received by the patients.

August 12th, 1889.

A CHINESE BENEVOLENT ASSOCIATION.

Oi Yuk Tong (愛育堂), the Native Dispensary of Canton, was organized in the 10th year of Tung Chi (1871). Previous to that time two missionary hospitals and several dispensaries had been in operation in the city. The oldest of these, the Medical Missionary Society Hospital, had been open for 35 years, and the benevolent work of foreigners in healing disease without pay had become known far and near. Moreover, hospitals in other parts of China, conducted by missionaries, had established the fact that this was a charity which they designed to be a permanent part of their work. In Hongkong, also, the civil, military and naval hospitals were more or less known to Chinese who had to do with foreigners.

It may therefore be stated as an undoubted fact that the example of foreigners was the moving cause which led to the initiation of "Oi Yuk Tong" and other native dispensaries and so-called hospitals, which are now quite numerous in South China.

Taking Oi Yuk Tong as a specimen of these institutions, a sketch of its administration and of its work will show how far they are copied from the foreign models and how far native ideas have developed them on new lines.

The Report of "Oi Yuk Tong" for 1887 is an 8vo. volume of 208 pp. with 18 pp. more of plans of buildings and lands. The first 14 pp. contain several proclamations issued in 1871 by the "Kwong Tung Shin Hau Tsung Kuk" (廣東善後總局)—a Board of officials for the management of affairs—giving their approval of the proposed institution, authorizing its establishment, and exhorting the people to give it their support. The next 28 pp. give a long list of rules and regulations for the management of the various departments, and the duties of the officers and employees. Then follow on 8 pp. lists of the names of the founders, living and dead, of the agents in California and Australia, and of the managers for each year from the beginning. The next 20 pp. contain the names of 20 teachers and of 20 free schools, and of the 531 scholars taught in them. The next 41 pp. give a list of the names (as far as known) and residence or places of death of paupers for whom coffins were furnished. The receipts and expenditures occupy 33 pp., and 7 pp. more give the totals of the income and outlay for each year from the beginning. A detailed account is given of the coffins distributed and of the schools taught, but all the information we get of work in other departments is the statement of the amount expended for certain objects.

The work may be divided under the following heads :—

- 1st.—Medical,
- 2nd.—Educational,
- 3rd.—Aid to poor,
- 4th.—General objects.

Under the first head we find that the sum of—

- 838 Taels = \$1,163, were paid to 4 doctors and
- 2,975 „ = \$3,993, „ for 78,501 prescriptions filled at
drug-stores for the patients.
- 320 Taels = \$444, were paid for vaccinations. How many, where,
or by whom is not stated.

Under the head of aid to poor we notice two small items :—

- 120 Taels = \$167, paid for rice congee,
- 88 „ = \$123, „ wadded jackets.

But the chief item is for coffins and graves :—

- 1,713 Taels = \$2,379, were paid for 1,023 coffins,
- 301 „ = \$ 408, „ „ gravestones,
- 81 „ = \$ 113, „ „ ground for burial.

Three qualities of coffins were supplied, the cost of each quality being :—

- For aged poor \$3.62 cents each,
- „ respectable poor ... \$2.50 „ „
- „ friendless paupers... \$1.50 „ „

These sums include carrying the coffin, digging the grave, and burial.

Coffins are not supplied for children, and it is a rare thing to see little graves in Chinese burying-grounds.

On further examination of the list of coffins furnished, it is seen that 415 were for paupers who died at the Fong Pin Sho (方便所),—a notice of which was given in your last number,—and which is designed to receive friendless paupers who are dangerously ill.

It is also to be noticed that 89 coffins were for persons recorded as “*mo ming*” (無名) nameless, or unknown, whose days were ended on the public street, or on the pavement in front of temples, where, of course, they had no attention, and died without any of the comforts in the way of food, medicine or care, or protection from cold in winter or from heat in summer.

Coffins are also furnished on application for paupers dying in the Medical Missionary Society's Hospital, and 26 of our patients received this benefit.

The number of deaths occurring in the streets of Canton from starvation and cold are not so numerous now as formerly. In the early years of Oi Yuk Tong, coffins were supplied for as many as 200 persons in one year who had died

nameless and friendless in the public highway. The "Fong Pin Sho" has received many of this class since it was opened. The large number still reported by Oi Yuk Tong may be taken as evidence that many thousands of human beings in the cities and villages of China end the sorrows and sufferings of this world every year with no more care than is received by the brute creation.

The educational department shows—

1,725 Taels = \$2,395, paid to 20 teachers for instructing 531 pupils;

For preaching Confucian doctrines—

285 Taels = \$ 395, were paid to 5 preachers.

Besides this there was rent paid for halls and school-rooms.

The amount of money spent for these two purposes does not indicate any great enthusiasm either for the education of the masses or the propagation of morality or religion. It is satisfactory, however, to see that the needs of man's moral and spiritual nature are recognized even by a heathen association. While the provision made for these objects is infinitesimally small, we can look forward to the time when an enlightened Christian sentiment will make ample provision for the mind and soul, as well as for the body, of these needy millions.

The funds of Oi Yuk Tong are also given in aid of general objects, as we see from a donation of 2,000 Taels = \$2,777, to the Viceroy's College, recently built, and of 700 Taels = \$962, to the "Home for Blind."

The Reports of former years also show that large sums of money have been collected and disbursed for the relief of sufferers from famine and floods, both in this and in the more distant Provinces of the Empire.

The receipts of Oi Yuk Tong show that the institution is in a prosperous condition. During the year 1887 the total receipts amounted to—

32,048 Taels = \$41,508, from the following sources:—

3,930 „ = \$ 5,450, were donations from companies and individuals,

4,887 „ = \$ 6,797, land-rents,

7,100 „ = \$10,000, rents of shops,

1,144 „ = \$ 1,587, deposits of renters,

60 „ = \$ 84, plasters and sundries sold,

13,714 „ = \$15,192, for rice sold,

1,179 „ = \$ 1,635, interest on deposits.

This statement of income for one year shows that the financial interests of the institution rest on a solid foundation. The Report gives a detailed list of the names and location of shops, and the location of lands owned by the institution, from which an annual revenue of over \$16,000 is derived, and real estate is added yearly by purchase and gift. Nearly one half of the income of the year under consideration was deposited at interest, to be available for purchases when opportunity offered.

The policy of the managers is thus seen to be not to trust to voluntary contributions, but to invest in real estate, so that they will not be dependent on what in a heathen country is well known to be a very uncertain source of support for benevolent objects.

The last 7 pp. give the total receipts and payments for each year from the beginning, the grand total being—

690,856 Taels = \$970,234—Receipts.

686,214 „ = \$953,072—Payments.

It is evident from these figures that the monetary affairs of Oi Yuk Tong are administered with no small measure of financial ability, as far as securing an income is concerned, and the success attained under the control of heathen managers is an assurance that the same business talent, sanctified by grace and devoted to works of Christian benevolence, will fill this land with institutions for the relief of human suffering in all its forms, as well as for the elevation of the people intellectually, morally and spiritually.

J. G. K.



IMPERFORATE VAGINA.—CRANIOTOMY.

By JAS. B. NEAL, M.D.

Mrs. Ts'UNG, age 23, married five years, presented herself at the Tung-chowfn Dispensary, August 28th, 1889, for the relief of a tumor in her abdomen. She was very weak, being unable to walk without assistance, extremely anæmic and nervous, and complained of a great deal of pain in her abdomen.

Examination showed her womb much distended, and her vagina imperforate, there being a thick, tough, fibrous septum closing it completely, situated just where its opening should be. Her mother informed me that there had formerly been a passage, but that eight months before, her daughter had suffered from a sore there, which had caused it to grow shut.

Diagnosing the case as one of retained menses, no history of pregnancy being given, I made an incision, about an inch and a half long, through the septum, which proved to be an eighth of an inch thick, and immediately there was a discharge of thick, tarry-looking matter. Being surprised, however, at the comparative scantiness of the flow, I introduced my finger, and found the vagina occupied by a large, hard body, which, on further examination, proved to be the head of a child at full term, the bones being well ossified.

I immediately set to work to perform craniotomy, and after three hours work succeeded in extracting the head, piece by piece, without tearing the mother. The arms were cut away separately, and finally the trunk and legs were born, but in the effort the woman's perineum was ruptured badly, being torn nearly to the margin of the arms, a slight laceration being also made between the vagina and rectum. The after-birth came away immediately, and was tough and dry, evidently having been detached for a long time. The womb was washed out with 1 $\frac{1}{2}$ % carbolic acid solution and the parts dressed with carbolized cotton. This treatment was repeated twice a day, and later on three times a day, boiled water being substituted, after a few days, for the carbolic acid solution, the womb at each dressing being thoroughly washed out. She suffered from slight septic fever for nine days, her temperature dropping to normal on the tenth day, on the coming away of a small piece of foul flesh which had resisted former washings. At the end of two weeks she had developed a hearty appetite, her womb was well contracted, with little discharge, and she had regained her strength sufficiently to return to her home to wait until her physical condition should be such as to warrant an operation on her perineum, the stitches which I put in at the time of the tear failing to cause union.

Remarks.—I have presented the foregoing case not so much to draw attention to the presence of an imperforate vagina, which is not an infrequent occurrence, nor to the performance of craniotomy, but rather to record the following facts, which did not come to light until after the operation, and which seem to indicate the probability of the child having been carried in the womb for three full months after it had died.

The woman's husband went to Manchuria in the seventh moon of last year, that is, in August 1888.

About the end of the Chinese year she began to feel the fetal movements, which continued until near the end of the fourth moon of this year (approximately May 20th), when labor pains set in. After ten days of ineffectual efforts to expel the child, the fetus ceased its movements, having apparently died, the native doctors all telling her that she had no child to be born, the pains she was suffering being due to some other trouble. The woman herself says she was not aware that her vagina was closed until after she had been in labor some days, when on examining herself she found no opening. She had had a soreness about her vulva, in October of last year, but had not known that it had grown over.

From this time on she suffered from very severe pains in her womb, coming on either in the morning or afternoon and continuing several hours, then ceasing, from great difficulty in defecation, and from irritability of her bladder. When she came to me, the head of the child was pressed low down into the pelvis, being near the opening of the vagina, her abdomen was not nearly so much distended as is usual at term, while her general health, and especially her blood, had suffered

severely, from the long-continued strain of daily suffering, and from absorption of the contents of the bag of waters. When I removed the child there was no offensive odor whatsoever and no signs of putrefaction, showing that the womb had been sealed up air-tight, while the remains of the amniotic fluid was a thick, tarry-like liquid. If the woman's story is a true one, she had carried a dead child in her womb for three months, and yet at the end of that time was able to submit to the operation of craniotomy and return to her home in two weeks. The thing, however, which impressed me most in the history of the case was the ability which the womb displayed of going through its course of involution so rapidly after so long a period of distention and vain efforts at expulsion.

TUNGCHOWFU, September 14th, 1889.

NOTES ON CHOLERA AND OTHER DISEASES.

The treatment of Cholera is so unsatisfactory that any fresh suggestions are to be thankfully received. Professor CANTANI, from experience of late epidemic at Naples, lays down the following indications for treatment: 1.—*To diminish the multiplication of the bacilli in the intestinal canal.* This is only useful in the initial period of the infection, and, owing to many difficulties in the way of administration by mouth, is best accomplished by large rectal irrigation. He employs a hot solution of tannic acid (38° – 40° C.)—the ordinary dose of tannic acid was from 5–20 grammes (75–300 grains) in $\frac{1}{2}$ –2 litres ($17\frac{1}{2}$ –70 fl. oz.) of hot water or infusion of camomile,—this internal hot bath acts more certainly than the ordinary hot bath in preventing the onset of the algid condition; further, cultivation experiments shew that the tannic acid is very fatal to the comma-bacillus: 2.—*To render innocuous the chemical cholera virus in the intestinal canal and to eliminate rapidly from the blood virus already absorbed.* The results obtained with the tannic acid solution justify the supposition that tannic acid diminishes the deleterious action of the cholera poison, in a manner analogous to its action with various other alkaloïds, and perhaps transforms it into an insoluble, or at least less soluble, tannate. 3.—*To obviate the thickening of the blood by the introduction of water.* He recommends subcutaneous injection of sterilized water at a temp. of 38 – 40 C., containing chloride of sodium 4 per 1,000. Carbonate of soda 3 per 1,000 a litre, more or less, should be injected, and is generally absorbed with great facility. Treatment should be commenced with the first appearance of choleraic diarrhœa, and continued *pari passu* with it. The regions of the body most suitable for the injections are the lumbar, abdominal, inguinal, interseapular, and gluteal.

The use of Glycerine for Rectal Injection.—This is an old remedy resuscitated, for, from the *B. M. J.*, January 21st, 1888, we find that Dr. WARREN was using it in the treatment of constipation 17 years ago. The drug has now been extensively used, empirically for constipation, and a good literature exists, so that we are now able pretty clearly to lay down the kind of cases in which it is indicated and to formulate some theory of its action. All are agreed that it acts by causing a local irritation of the rectal mucous membrane, producing peristalsis. Observers differ as to whether this irritation is of the nature of congestion, or whether it is caused by a desiccation of the mucous membrane from the taking-up of water by the drug; in favour of the latter view is the undoubted fact that the purgative action of the drug is weakened exactly in proportion to the amount of water added.

The peristalsis excited by its use practically does not go beyond the sigmoid flexure, and it is therefore in cases of faecal accumulation in the lower bowel, however caused, that it is chiefly useful. The constipation of pregnancy, and of infants who have too long fed on milk alone, are speedily, and especially, relieved. It has also been found useful in cases of habitual constipation as a means of "training" the rectum, that is, for exciting regular rectal "calls."

Glycerine has also been advocated by Dr. RICE—*Practitioner*, December 1888—for some forms of diarrhoea, with offensive smell, in children. In his experience the treatment causes no pain, and is very successful. Quantity to inject:—"1 or 2 drachms of pure glycerine in an adult, and of $\frac{1}{2}$ to 1 drachm in a child, is invariably followed by stools occurring in two or three minutes."

The method of administration is a difficulty. Many special apparatus have been invented and extensively advertised. One writer always uses an "India-rubber urethral syringe with a piece of thick-walled elastic-tube on the nozzle. One of the most valuable suggestions, and well worthy a trial, comes from Dr. GEORGE GREWCOCK, of Brighton—*B. M. J.*, December 22nd, 1888, p. 1424. He says, "If a piece of cotton-wool alone, the size of a nut, is well saturated with glycerine, and inserted as a suppository, in a short time a copious motion is produced."

A. L.

TIC-DOULOUREUX.

By ROBERT COLTMAN, JR., M.D.

This most distressing affection is comparatively rare. In eight years I have met but three cases, and these three cases all due to different causes.

Case I.—Dentist, age 35. Came to me in July 1884, telling me he had "Tic," and that he had suffered the removal of all his teeth and had undergone an operation in which the infra-orbital foramen had been laid open and a neurectomy performed within it. This gave him three months' relief, but the paroxysms had since returned with increased severity. He said his only relief during paroxysms was obtained by hypodermic injection of morphia over seat of the pain. He had been treated by a number of the best physicians and specialists in Philadelphia, and was no better, in fact worse than at first. I told him that if any one could suggest a plan for his relief it would be Prof. BARTHOLOW, and advised a consultation with him. He joyfully acquiesced, and the following day we consulted that gentleman. After hearing his history and minutely examining his symptoms, the Professor said, "If the section of the nerve had not been made, the patient could have obtained relief for from three to six months at a time by an injection of ten drops of chloroform into or over the sheath of the infra-orbital nerve, but as the section had been performed he feared it would be useless; in which event nothing better could be done than to use morphia hypodermically as needed for the relief of the pain." At the patient's earnest entreaties I made a trial of the chloroform injection, but, as Dr. BARTHOLOW predicted, it proved useless, not affording the slightest relief. The patient continued to come to me for some time, but never improved, and finally I lost sight of him. Dr. BARTHOLOW's opinion was that the disease arose from some inter-cranial exostosis.

Case II.—Farmer, age 33. Came to me in January 1885, saying he had suffered for two years with paroxysms lasting a week or ten days at a time and recurring twice a month, gradually becoming more severe. During the paroxysms eating and sleeping were impossible. Teeth all sound, no history of malaria or syphilis. No operation had been performed; had received morphia hypodermically several times, which had given some relief.

I introduced the needle of a hypodermic syringe under the lip at the junction of the mucous membrane of the lip and teeth, and passed up under the muscles of the face to the infra-orbital foramen, depositing ten drops of chloroform. In two hours the pain entirely left and was succeeded by numbness which lasted up to the time I left America, some three months later. The patient was exceedingly

grateful, and said I had undoubtedly saved him from suicide, as he could not much longer endure the torture. As he had suffered previously with rheumatism, I am inclined to think his disease of rheumatic origin.

Case III.—Chinese farmer, age 47. I first saw this man three weeks ago while itinerating in a village a hundred li from Chinanfu. He had suffered the past three years. At first the paroxysms came weekly, then daily, and about three months ago seemed to have come to stay, as day and night he suffered inexpressible torture, and could not do a stroke of work. The pain came on at intervals of from three to five minutes, during which he would vigorously rub the side of his face affected, the moustache and eyebrow of that side being rubbed entirely off by the constant friction. The pain lasted a minute to a minute and a half and was succeeded by a lull of a few moments. No history of syphilis, malaria or rheumatism. Finding two decayed teeth on the affected side, I extracted them, but not the slightest relief followed. As I did not have a full supply of remedies with me, I requested him to accompany me to the city for treatment. I first gave him 16 grs. of quinia sulphate with small doses of morphia, daily for three days; then, on arriving at the city, gave him hypodermic injections of $\frac{1}{8}$ gr. of morphia over the infra-orbital nerve with iron, quinine and strychnia by the stomach, but not the slightest improvement. Then I put him on Potassium Iodide grs. 10, Hydrarg Chloridum Corrosivum gr. $\frac{1}{12}$ *ter in die*. In three days he said he was *slightly* better, and so I continued the treatment a week longer, and now he is entirely well. Sleeps well at night, eats well, and proclaims himself a new man. I shall give him a supply of Ricord's pill of Hydrarg prot. iodide et opii, one to be taken each night for a month, and send him home. Although he has denied syphilis, and there are no positive proofs of it on his person, I believe this case to be due to a gumma somewhere in the course of the nerve. If this treatment had not succeeded, I should have given him the chloroform injection for relief.

I should never perform a neurectomy for this affection, as the weight of testimony is that only a few months' relief follow in the best cases, and then the patients are deprived of the constant relief they would otherwise get from the quarterly or semi-annual injection of chloroform. Dr. BARTHOLOW told me he had a wealthy patient living in Boston who came to him semi-annually, first to Cleveland and then to Philadelphia, to obtain relief by this method. If after treatment for malarial, rheumatic, and syphilitic poisoning the pain still persists, chloroform by hypodermic injection, directly over the nerve affected, promises the most satisfactory relief.

CHINANANFU,

September 26th, 1889.

REMINISCENCES—(continued).

By Rev. A. W. DOUTHWAITE, M.D., F.R.G.S.

During the Tai-ping Rebellion, an officer named Yü-yuh-shan, in the service of the Imperial Government, was stationed in Ning-po, in command of a company of soldiers, and while there, was attracted by the preaching of the Missionaries. How much he understood of Christian doctrine, I am unable to say, but what he did understand made a lasting impression upon his mind. At the close of the rebellion, the Imperial army was, to a large extent, disbanded, and Capt. Yü, being one of the officers whose services were no longer required, was cashiered—or, more probably, dismissed *without cash*, as is the usual custom,—and had to seek other employment. Having the misfortune to be a scholar, it was *infra dig.* to work at any trade, so he purchased a few medical works, studied the ancient methods of writing prescriptions, put on the indispensable spectacles, and commenced practice as a full-fledged physician. He was naturally very religious, but had no faith in idolatry, so joined a sect of reformed Buddhists, who oppose image worship. Yü had that true missionary spirit so rarely met with in China, which makes a man fearless in trying to compel others to believe what he himself knows to be true. His religion was everything to him, and believing with all his heart the doctrines of the sect he had joined, he asked permission of the chief men to go forth as their accredited agent, and win converts wherever he could. He received no salary, but travelled on foot, and lived on the food given him as he went from house to house preaching his new doctrine. His earnestness, coupled with his gentlemanly bearing, carried conviction to the hearts of the people wherever he went, and ere long he had enrolled the names of thousands of converts, in all parts of Chehkiang province, and over the borders of Kiang-si. He continued this itinerant work for several years, and then settled in the city of Kin-hwa, and resumed his medical practice. In 1875, I opened a mission station in Kin-hwa, and “Dr” Yü, who had not forgotten what he had heard in Ning-po, fifteen years before, attended regularly the Gospel services held there every day. After about a year’s careful study and enquiry, he became convinced of the truth of Christianity, asked to be baptized, and was received into the Church. Several months after his conversion he was taken ill, and I invited him to come to me for treatment, in the city of Kû-chao, three days’ boat journey from his home. So far, he had manifested none of the zeal in the cause of Christianity which had characterised him as a Buddhist missionary, but during his sickness, his old aggressive spirit was roused within him, or rather, the Spirit of God so stirred his soul to enthusiasm, that before

he had fully recovered, he requested me to send him forth as missionary to the adjoining province of Kiang-si.

I well remember his earnest entreaty to be allowed to go, for he said, "I have led hundreds on the wrong road, and now I want to lead them to the way of truth: *Let me go. I ask no wages, nor do I want any of your money, I only want to serve Jesus.*"

I, of course, sent him away gladly, and as he was too old and feeble to walk, I gave him a little money to defray his travelling expenses.

Three weeks later he returned, bringing with him one of his former converts, a stout, jolly looking old farmer, named Yü-liang-hyi, who seemed almost wild with delight at having, as he said, "found the truth, after searching in vain for forty years."

The old man stayed with me several days, and then begged to be baptized before returning home. At first I declined to receive him into the Church, as I knew so little about him; but he pleaded so earnestly, saying that he "was an old man, and would never be able to make such a long journey again," that I yielded, and baptized him. Six weeks later, he turned up again, accompanied by six of his neighbours, men who showed plainly that they were earnestly seeking for something that would satisfy their souls, as their own religion utterly failed to do. I entertained and instructed them for several days, then sent them back to their villages to tell others what they had learned. They were subsequently baptized, and through their efforts, nine others—men and women—were led to trust in Christ, while I had charge of that work.

It was not to be expected that the devil would allow such a work to go on unhindered, and it is sad to have to relate that the farmer Yü-liang-hyi, who had been so earnest in seeking the salvation of others, and had even built a small chapel at his own expense, became a backslider, and is still, I am informed, kept out of fellow-ship.

But to return to our devoted missionary, Yü-yuh-shan. Having fully recovered his health, he started on another journey into Kiang-si, and while on the road leading over the borders, fell in with a young man named Tung, a well-to-do farmer, of T'ai-yang, near the city of Yuh-shan. He was evidently a kind-hearted fellow, for he volunteered to assist the old doctor in carrying his bundle of bedding. Our friend Yü, always ready to speak a word for his Master, urged the young man to give up idolatry, and to trust only in Christ for salvation; and ere they parted, he gave him a New Testament, with a request that he would read it carefully.

Yü stayed in the village of Sing-keng, and Tung proceeded to his home in T'ai-yang, forty li further on; but the words he had heard so impressed him that he frequently gave up a whole day to visiting the old missionary during his stay in Sing-keng.

Nine months afterwards, I visited T'ai-yang, and was overjoyed to find that Mr. Tung had so effectually proclaimed what he knew of the Gospel, that many of his neighbours had given up idolatry, and were, nominally, Christians. I remained in the village five days, dispensing medicines during the day, and preaching to large and attentive audiences every night. While there, the brother of my host, a youth about 19 years old, informed me that he was about to be married, but that both he and the bride, with their families, desired a Christian marriage ceremony, for they would have no more idolatrous practices. I consented to marry them, and the rite was performed in the presence of a large assembly of onlookers.

During the year following my visit to T'ai-yang, I baptized fifteen converts from that village, and when I was compelled by failing health to leave that district, my successor, Mr. (now Dr.) RANDLE, opened a preaching hall in the city of Yuh-shan, to which the converts went weekly for assembled worship. I am informed that there are now about seventy communicants in connection with that church, though many of the first converts have died. Our friend Yü-yuh-shan has long since gone to be with the Lord, whose service was his delight, but the seed he sowed is still springing up and bearing fruit, and who can estimate the results of his earnest labours.

I have told this story, not because of any direct connection with medical missions, but that others may be encouraged by the facts narrated, as I have been, to persevere in the glorious work of preaching "Christ and Him crucified," however few may apparently believe our report, and even though we may never see the results of our labours.

Our brethren who were preaching in Ning-po thirty years ago—most of them now with Christ—never knew that among their stolid, indifferent hearers was one who was eagerly drinking in every word they said, and who was God's "chosen vessel" to carry the news of salvation to the regions beyond.

We need reminding frequently of the words of Solomon, and their spiritual significance,—"*In the morning sow thy seed, and in the evening withhold not thy hand: for thou knowest not whether shall prosper, either this or that, or whether they both shall be alike good.*"

A CASE OF FÆCAL FISTULA.—OPERATION.—RECOVERY.

By H. W. BOONE, M.D.,

Surgeon to St. Luke's Hospital, Shanghai, China.

This patient comes in with the following history, furnished by the doctor who first saw the case :—November 1st, 1888 : “ Nineteen days ago was seized with pain in inguinal region, which he said soon became general over the whole abdomen. After his seizure there was for some days more or less stereoraceous vomiting. On the 16th day, he says, an oblong tumor, which had been observed in the inguinal region, ulcerated through, and discharged much fæces, pus and fluid. After he was seen an enema was given, which resulted in the passage of a moderate amount of very firm fæces. Some days after this the bowels began to act spontaneously but irregularly. For two months past he has passed one-half of his fæces by anus, and one-half by opening in inguinal region.” Admitted to St. Luke's Hospital, March 23rd, 1889, a healthy-looking, fairly well nourished lad of 19. He has a small opening over the region of the cæcum, from which fairly well-formed fæces are passed. There are the marks of two sinuses, one running toward the scrotum and one toward the median line, which are fully healed up. The opening of the fistula is too small to admit of the passage of the little finger, and there appears to be a cavity between the skin and the bowel which seems at times to fill up, and then, after a free evacuation, to become smaller. A probe, slightly curved, passes freely upward and appears to be in a large cavity ; it can also be passed directly downward for two inches, but not in any other direction. The patient was carefully prepared for the operation by bathing, the evacuation of the bowels, appropriate food, and the cleansing and disinfection of the parts. On March 27th, at 10.45 a.m., chloroform was administered by Dr. REID, and with the kind assistance of Dr. JAMIESON, and Surgeon KELLARD of H.M.S. Mutine, I proceeded to operate.

A free incision was made over the site of the lesion, and the parts were dissected up, thus opening into a cavity which connected with the cæcum. A ragged, irregular wound was found two inches above the lower end of the cæcum, nearly transverse in direction, and one and three-quarters inch in length ; the mucous membrane was ragged and everted. On insertion the finger passed up readily in the direction of the ascending colon, also downward for nearly two inches. With one finger in the gut, I then carefully freed the bowel in this vicinity from some cicatricial attachments, removed some shreds of areolar tissue, and then thoroughly cleansed the parts with sponges wrung out of a warm two-per-cent

solution of carbolic acid. I then put in a double row of "Lembert sutures," of fine silk, and closed the opening, passing two stitches at either end of the line through healthy tissues beyond the angles of the wound. The edges of the wound having been thus inverted, and being in close apposition, the parts were cleansed, a short india rubber drain-tube was inserted beneath the skin, and the wound of incision was united with interrupted sutures of catgut. Borated cotton was applied over the line of incision, then Gamgee pads; a wide bandage was applied around the body, with a spica in the groin. The patient bore the operation well. He was put to bed and allowed nothing but one teaspoonful of weak, hot tea from time to time. On the evening of the day of the operation his temperature was 99.3 F., on the next evening it was normal, and continued so afterwards. Slight chloroform nausea for 24 hours. At twenty-five hours after the operation, began the injection of beef-juice per rectum. After one day he objected so strongly to the use of enemata, and to taking Valentine's meat-juice by the mouth, that I ordered three ounces of equal parts of milk and rice-water to be given him, in spoonful doses, during the day. *Fourth day.*—Slight stain on dressings, which were removed; they were stained with pink serum, wound quite healthy, no pain or tenderness; fresh dressings applied; rice-water and milk, eight ounces. *Sixth day.*—Enema, followed by a small passage containing fæces; meat-broth in addition to milk and rice. *Eighth day.*—Change dressings; wound healed, except track of drain-tube, which was removed. *Ninth day.*—Minced meat and boiled fish with the rice and milk. One-half ounce of salts in the morning was followed by two natural stools in the afternoon. *Eleventh day.*—Two natural motions without the use of any aperient. After this time a regular and natural stool every day. On the morning of the thirteenth day removed the third dressing. Wound entirely healed; a small pad of absorbent cotton and a bandage were applied to keep his fingers from the groin. On the seventeenth day allowed him to get out of bed and sit in an arm-chair, *April 20th.*—Returned to his ordinary native diet, and walked about the hospital yard. *April 22nd*, twenty-six days after the operation, he is perfectly well, and is discharged at his own request.

Remarks.—This young man had twice attempted suicide, and there is no doubt that his parents, with true oriental disregard for the sanctity of human life, were quite willing to allow him to make away with himself. His complete recovery seemed to them but little short of a miracle. The man came to me in very good condition, for his physician had kept the parts cleansed, healed up the sinuses which had burrowed in the surrounding region, and had put the parts into a healthy condition; while by careful attention to the general health of the patient, he had put him in a good way to recover from the results of an operation. This is an example of a case where the operation was an easy one, and there were no untoward complications. My former cases were of fistulæ, in which the

small intestine was involved, and where the two ends of the gut connected with the artificial anus were resccted and the cut ends joined together by sutures,—a much more dangerous operation for the patient.

This case is reported as showing that it is not every case of faecal fistula in which the operation for cure is specially dangerous; and that, while the modern plan of cutting down and operating directly upon the injured portion of bowel is the best, in a certain proportion of cases it is not attended with very great danger to the life of the patient.

In this case the faecal fistula seems to have resulted from some obstruction to the bowel, for we learn that he had severe pain in the inguinal region, and, after a few days, vomiting of stercoraceous matter. A faecal abscess was then formed, which later on effected an opening through the integument. There was *ulceration* of the caecum,* but nothing to show whether the appendix was or was not involved in the inflammatory process. As the appendix was completely shut off from the site of the injury, it was deemed best to confine attention to the local lesion and not to go exploring for undiscovered troubles. The bowel opened indirectly to the surface; the skin-wound was quite small, and the fistulous track was irregular; there was a cavity containing pus and faeces between the wall of the abdomen and the bowel; it is a variety known as the stercoropurulent fistula. The method employed—of putting in a double row of Lembert sutures, and of inserting a couple of stitches beyond each angle of the wound—seems to me the one which offers the greatest safety. Two rows of stitches give greater security from yielding or leakage than one; the extra stitches at the corners of the wound make sure that no openings were left at those points. The very fine silk used would seem to be the most reliable material for the sutures.

The wound never gave any trouble at all, and in less than thirteen days it was entirely healed up. With our modern style of operating and dressing, this is the result which we have a right to look for. Since giving up the use of the spray, and then the general use of the irrigator in all cases, I find more and more that perfect cleanliness and dry dressings give me the best results, and operations for laparotomy, the radical cure of hernia (so called), and other operations, go on to a cure with but little, if any, untoward complications.—*The Medical Record*.

* This seems to have been a perforating ulcer of the caecum. There have lately appeared several accounts of this rare and interesting trouble.

The China Medical Missionary Journal.

VOL. III.

DECEMBER 1889.

No. 4.

CHINA AS A FIELD FOR RESEARCH IN NERVOUS DISEASES.

It has been said that in China "Diseases of the nervous system are remarkably infrequent." That they form but a small part of the total number of cases that find their way to Mission Hospitals is doubtless true, but it is also true of the large *general* hospitals in any part of the world. We are inclined to think, however, that there is a wide field for useful research in this branch of our work, and a perusal of the many Mission Hospital reports, published from year to year, will strengthen this conclusion. Owing to the easy-going and quiet life that the ordinary Chinaman lives, the many evil effects of the high-pressure life of Western cities are scarcely to be expected; but this makes the investigation of all cases coming before us the more important. With so many of the conditions usually considered to be at the root of nervous troubles absent, the enquiry into questions of heredity, causation and predisposing surroundings become all the more interesting and valuable. The triumphs of Surgery are so evident and convincing that the Chinese readily grant us the palm. The investigation of obscure medical cases is a work of much patience, and frequently brings little satisfaction to the patient and less still of gratitude to the doctor. But we are working for higher ends than the immediate present, and we ourselves always feel that one of our aims is to prepare the future generation for a wider acceptance of the blessings of medical science. Should a prolonged and careful investigation into a difficult nervous case end in nothing more satisfactory than a gloomy, though accurate, prognosis, we have done much for our patient and more for the generation at large. A man who can successfully use his ophthalmoscope and laryngoscope, and who invokes their aid in suitable cases, to whom the investigation of deep and superficial reflexes is a routine but yet intelligent procedure, and whose patient realises that the doctor can see with his fingers,—such a man, whatever be the ultimate result of his treatment, must make a lasting impression upon the patient, which will reproduce itself in many minds. To know that in telling a man that his disease is incurable you are saving him—if he will but believe you—from the cruel mercies of many physicians; to know that although you cannot promise a cure, you may yet frequently with certainty promise alleviation of suffering; to know that in impressing one patient with your skill and knowledge you are opening up the way

for the saving of many lives; to know all this is surely ample reward for all the trouble and time given. But the benefits of careful investigation in Nervous Diseases do not stop with others, they recoil upon ourselves, and make themselves felt in every department of our work,—we train ourselves in habits of accuracy, patience, and delicacy, the lack of which is ever fatal to success. It is obvious that many of us are far too busy to take up any special line, for we can scarcely expect a man who has to be general practitioner and specialist in one, to keep abreast of medical science everywhere. A busy man may be forgiven if his minute anatomy of the brain gets somewhat hazy, and if he is somewhat foggy on the subject of reflexes and the reactions of degeneration. There are some, too, doubtless, who may feel that with the great mass of suffering humanity around them, they can find no time for such refinements of medical science, especially when success in treatment is not proportionate to the satisfaction of diagnosis. All this notwithstanding, we trust that our brethren will try and specially bear this matter in mind, and with many careful observers in so wide a field as China, we may hope to add something, either in the way of addition or modification, to what we already know of the diseases of the Nervous System.

S. R. H.

REVIEW.

[*“Annual of the Universal Medical Sciences.”* Edited by CHARLES E. SAJOUS, M.D., and 70 Associate Editors, assisted by over 200 Corresponding Editors, Collaborators and Correspondents. 5 vols. 8vo. London Office :—139-143, Oxford Street, W.; New York Office :—45 E, 12th Street; San Francisco Office :—427, Sutter Street.]

The issue of this work for the year 1889 is now before us, and, as with a former edition, we will not attempt a review of the entire work, but take such portions as may seem of most general interest to those of the profession whose lot is cast in China.

Chronic Tropical Diarrhœa.—“As found in those who have lived in India, this is well described by Sir JOSEPH FAYRER. He considers it a general derangement of all, rather than a specific disease of any one organ. There is a thinning of all the coats of the small intestine, so that they become translucent, with atrophy of the glandular tissues. The mesentery, mesenteric glands, liver, spleen and kidneys are atrophied in long-standing cases. The most effective

treatment is dietetic, milk alone being most serviceable; great attention should be paid to the clothing and mode of life; drugs are of little use."

Acute Dysentery.—Treatment.—"Correspondents continue to give favourable reports of their experience with rectal treatment. Large enemata of hot water or ice-cold water are said to relieve tenesmus and diminish the number of stools. An enema of two to three pints of water, with one-half to one drachm of alum to the pint, once in 24 hours, through a soft rubber tube, introduced 1 foot into the bowel, gives comfort for the next twelve hours. Antiseptic irrigation is in great favour, ice-water 1 pint with ten grains of salol every two to six hours, or one or two enemata of eight grains of Naphthalin in three ounces distilled water, are methods recommended. Fluid extract of ipecacuanha, thirty to fifty drops in two or three drachms of water every six, twelve or twenty-four hours, combined with tincture of opium, if not retained, and given by the mouth, is a method of administering this specific remedy."

Typhilitis, Perityphilitis, etc.—Treatment.—"If we were guided by the results of the operations and post-mortem examinations, we should say, as FITZ asserts, that typhilitis, perityphilitis, perityphilitic tumor and abscess mean inflammation of the vermiform appendix; that the chief danger of this affection is perforation; that perforation in the great majority of cases produces a circumscribed suppurative peritonitis, tending to become generalized; that in the light of our present knowledge the surgical treatment (operation in the first week) offers the best chances for the life and future health of the patient. But, as has been shown in this review, so many cases recover after all the typical symptoms of the disease have been presented, that we may well feel that we have, so far, no assured guide as to which cases do and which cases do not require surgical interference. As long as the disease is mild, with a tendency to improvement in all the symptoms after the third day, no abscess being discovered by physical examination, surgical interference is not justifiable. If there is evidence of pus, or if the patient is daily growing worse after the third day, an exploratory operation should be performed before the end of the first week or as soon before this as the symptoms demand, the operation to be continued to the end if pus is demonstrated to be present, or abandoned if no pus is found. In all cases where general peritonitis exists, laparotomy should be performed. In acute rapidly progressing cases, even when no pus can be discovered, an exploratory incision should be made." The above is very sensible and sound advice, but the reviewer desires to call attention to the studies of TREVES, who has demonstrated the fact that even in cases which are rightly diagnosticated, and where recovery is supposed to take place, this recovery is *very frequently* only temporary, and is, sooner or later, followed by one or more relapses; also, that the only sure cure is to remove the cause by an operation. He reports such cases in which he has operated with the result of bringing about a final and perfect cure. These facts

should lead us to be very cautious about leaving any well-assured cases of the above diseases to the natural efforts towards recovery, and, at all events, it should teach us to watch such patients with the utmost care for long periods after their convalescence.

"In the published notes of cases by OSLER, there are three of perforating ulcer of the cæcum. In the first the abscess communicated with a localized abscess in the iliac fossa; in the second with an abscess-cavity between the caput coli and the psoas muscle, and an ulcer on the posterior wall; in the third case the colon was strictured and the wall had broken through; there was a large abscess which extended behind the psoas muscle. These are interesting and rare cases." In another part of this journal will be found a reprint of a case reported to *The Medical Record*, of what was probably a perforating ulcer of the cæcum. As these are rare cases, the readers of the journal are referred to this article.

Infantile Digestion.—ESCHERICH found that "there was no essential difference between the digestion of cow's-milk and human milk when the cow's-milk was *completely* sterilized. Although cow's-milk contains three times as much curd as human milk, and the curds when formed were larger and firmer, it was as completely used up in the digestive process as was the case in human milk. The larger amount of fæces in infants fed upon cow's-milk is explained by the imperfect absorption of inorganic ingredients and of fat, and this is principally due to the almost universal practice of over-feeding hand-fed infants. The essential difficulties with cow's-milk then are not the curd, but the bacteria which it contains and the quantity in which it is given." By sterilized milk he means put milk in 4 or 6 oz. bottles with perforated corks; stand 8 or more of these bottles in a kettle of water with a perforated tin false bottom; put on the fire; when the milk begins to boil, the perforations in the corks must be closed with stoppers; keep up the process until the milk has boiled for 30 minutes, then take the bottles out, and keep in a cool place; do not remove the corks and stoppers until you desire to use the milk, then put a sterilized rubber nipple over the bottle and let infant nurse from it. Milk thus sterilized will keep for several days in the hottest weather. Never use the milk in a bottle except the one time when it is first opened." This article, by HOLT, on Gastric Intestinal Diseases in Children, is replete with interest.

H. 17. Attention is called to the rules to be found on this page for the thorough disinfection of patients, clothing and bedding in Typhoid Fever.

JACOBI "points out the various sources of danger in typhoid fever in children. The small intestine is affected principally. After the first few days a considerable amount of food is required, and it must be chosen so as to be digestible in the stomach. Besides plenty of water, or water acidulated with *Hydrochloric acid*, albuminoids are indicated. Milk and cereals (in decoctions)

which must be strained, are the proper foods. At no time during the disease, and during the first ten days of fully-established convalescence, must the food ever be solid. No vegetables must be allowed until three weeks have elapsed since the beginning of apyrexia. When the milk and cereal food become distasteful, a change in their preparation will and must suffice. The large majority of relapses are due to dereliction in the strict rules of feeding. *Variola*.—"If, upon stretching a portion of the skin the papule becomes impalpable to the touch, the eruption is caused by measles; if, on the contrary, the papule is still felt when the skin is drawn out, the eruption is the result of small-pox. *Syphilitic Disease of the Brain and Spinal Cord*.—BRAMWELL "gave sixty grains of Potassium Iodide several times a day." "If our Continental *confrères* would only try the American method of giving iodide of potassium in nervous syphilis, *i.e.*, of one-half to two and one-half drachms three times a day, they would soon obtain better results."—SEGUN. *Beri-Beri*.—There is less inclination to the belief that this disease is a multiple neuritis. KYNSEY, of Ceylon, attempts to prove the identity of Beri-Beri, of Ceylon, (or anæmia) with the disease caused by the presence in the intestine of the parasitic worm—*Ankylostomum duodenale*. The disease in the Malay Archipelago is different from the beri-beri of Ceylon; in the former, paralytic symptoms are marked; in the latter, while there is difficulty in locomotion, owing to the œdema of the lower extremities, there is no true paralysis. The Articles on Diseases of the Brain and Spinal Cord,—SEGUN; Peripheral Nervous Diseases and General Neuroses,—HUN; Mental Diseases,—BRUSH; Inebriety, Morphinism and Kindred Diseases,—BIRDSALL, are very full and replete with interest. SENN contributes an admirable article on the Surgery of Brain and Nerves. *Malarial Orchitis*.—"E. CALMETTE, recalling the published testimony of BERTHOLON and SCHMIT, in 1886 and 1887, adds five cases of this malady, treated in the hospital at Pavia, by L. MAGUINI, going to prove that malaria may cause Spontaneous Orchitis, sometimes followed by Atrophy. An admirable presentation of this subject of Malarial Orchitis, with histories of six cases, is given by CHARVOT. Quinine alone seems to help the patient, and atrophy in some cases cannot be prevented. *Hydrocele*.—The favorite remedy is the injection of pure carbolic acid—a few drops. KELSEY in summing up on the arguments for the different methods of operating for the cure of piles, writes, "For exactly the reasons that WEIR prefers WHITEHEAD's operation to the ligature, I prefer the clamp to both. All three of them give the same satisfactory results in the end, but the clamp and the method by excision cure with less pain than the ligature, and the clamp operation is much simpler than that of excision, while possessing all of its advantages. "The reviewer, can fully concur with the above statements from his own experience of various methods of treatment. *Hæmorrhage after Operations on the Rectum*. "KELSEY.—This is an accident every operator should be prepared to meet at an instant's

notice and to overcome. Pressure with cotton-wool and a pad and bandage against the anus should first be tried, and ice or iced water may be placed in the rectum. These failing and the patient continuing to evacuate large clots of fresh blood when the desire for a stool is felt, no time should be lost in half measures. A bell-shaped sponge the size of a closed fist, previously rendered aseptic, should always be in the operating bag. A hard rubber tube, or bamboo, of half inch diameter and six or eight inches long, should be thrust through the apex of the sponge and firmly tied so that an inch of tube projects. Squeeze the sponge dry, and freely dust with dry subsulphate of iron. Etherize the patient, introduce sponge and tube above the bleeding point, pack the rectum below the sponge down to the anus full with coarse charpie, pull down on the end of the tube and press up on the charpie, and a pressure is exerted on the lower rectum and anus which will be absolutely reliable. The compress may be left in indefinitely (a fortnight) and may be removed under ether." *Gunshot Wounds*.—"Military surgeons at the present time are coming to the opinion that, excluding the head, the extraction of balls is a matter of secondary importance, and do not favor any prolonged attempts toward accomplishing this object. These wounds when made by a ball alone are for the most part aseptic, and if left alone and dressed aseptically, heal without sloughing to any extent. Often balls can be removed with better results if allowed to remain until the track of the missile has healed." "In regard to laparotomy for gunshot wounds, a much bolder and more successful surgery has been practised than was formerly the custom."—AGNEW. "A. H. FERGUSON, of Winnipeg, Manitoba, collaborator, reports on the use of galvanic electricity in the treatment of cancerous tumors of the breast. A patient twice operated for scirrhus of the mammary gland has been, during four years, rendered fairly comfortable in respect to pain. The growth has been retarded in its progress and the general health and possibilities for activity greatly improved. The current is allowed to pass for as long a period as the convenience of the patient admits." *Orthopædic Surgery*, by MORTON and HUNT, is full of good points, but our space forbids quotations.

Carbuncle.—Treatment. EDMUND OWEN, "recommends the treatment of carbuncle by erosion, and reports a case in which this treatment, followed by antiseptic washing, resulted in the disappearance of the symptoms of septicæmia with a rapid cure." A case of facial anthrax, greatly indurated, with extensive œdema, and all the symptoms of grave general infection, was injected, in the fourth day of the disease, in four places about the pustule with a two-per-cent solution of carbolic acid. This treatment was repeated twice on the first day, and once daily for three days; compresses, soaked in five-per-cent carbolic solution, were kept constantly applied to the part. Improvement was rapid, and the patient recovered with a scarcely perceptible scar." CONTENTO reports six cases, LOMINESKY three, treated in the same way and with a similar result. "A writer

recommends the powdered flowers of the *pyrethrum*, *carneum*, or *roseum*, Persian Insect Powder, for the destruction of head and crab lice. The parts affected should be wiped perfectly dry and a small quantity of the powder dusted over the part and rubbed in thoroughly. In two minutes every louse coming in contact with the powder will be dead. In clothes or body lice the powder should be blown by a powder-blower upon all the under-clothing. As the nits are not destroyed, the operation must be repeated at intervals of two or three weeks. (Vinegar or acetic acid [dilute] will destroy the nits). We can only draw attention to the excellent article of VAN HARLINGEN on Diseases of the Skin. The article on Ophthalmology, by OLIVER and GOULD, is very full, profusely illustrated with woodcuts, fine engravings and colored plates, and is well up to date. *Diseases of the Eyes consequent upon Malaria*.—"We have this year the convictions of other observers rendering the fact more positive. BRUNT reports the details of six cases of malarial retinal hæmorrhage. All were middle-aged males, the victims of chronic malarial poisoning, enlarged spleens, etc. Both eyes were affected in five of the cases; the hæmorrhages were usually multiple; there was slight retinitis and papillitis; the vision was impaired according to the location of the hæmorrhage. The tendency is toward recovery as the general malarial affection is conquered. The hæmorrhages are ascribed to no special morbid process, but simply to the poverty of the blood induced by the malarial poison." "In the St. Petersburg Institution cases of irido-choroiditis following severe recurrent fever occur every year."

"CHASSAIGNAC suggests that there is a variety of acute tonsillitis in which malaria plays a prominent causative rôle, since in them there is a periodic exacerbation after painful symptoms, and since also they are not benefitted by the usual methods of treatment, but yield readily to the alkaloids of cinchona." The Editor, CHAS. E. SAJOUS, M.D., gives us a most instructive article on Diseases of the Nose and Accessory Cavities. DELAVAN, INGALLS and COHEN treat fully of the diseases of the Pharynx and Larynx. Intubation of the larynx is gaining steadily in favor with the profession, especially since the introduction of "A New Method of Feeding in cases of Intubation of the Larynx by Position Head Downward on an Inclined Plane," by Dr. CASSELBERRY, of Chicago. CASSELBERRY says: "Regarding the exact position, the angle varied in different cases; but from 45 degrees to 90 degrees seems necessary to obtain the best results. The child is held on its back in the arms of its nurse, the feet elevated, and the head left to hang over the arm, then it may take the mouth of the feeding bottle, suck through a tube from a glass or be fed from a spoon." It *must not* be allowed to regain the upright position until the food is entirely swallowed, the last drop taken in to the mouth. Some patients will swallow quite as well in the inclined position when lying upon the abdomen. Urinalysis is well treated by TYSON and SMITH, General Therapeutics by CROZER GRIFFITH, and Experimental

Therapeutics by HOBART A. HARE are very full and interesting articles. Electro-Therapeutics, by A. L. RANNEY, contains valuable suggestions. Histology and Microscopical Technology by WALTER P. MANTON, and Bacteriology by HAROLD C. ERNST, are valuable and well-illustrated articles. The last two articles, Physiology, by H. NEWELL MARTIN and W. A. HOWELL, and Anatomy, by WM. S. FORBES, M.D., require and deserve a very careful reading.

This very imperfect review fails to give any idea of the great value of these volumes. The best articles are too long for quotation, while so condensed that any attempt to shorten them would make them unintelligible. The illustrations are very numerous—engravings, photographs and colored plates—some of them of exceeding value, are liberally scattered through the volumes. The dates of all journals referred to are mentioned in the text. An index has been added to each volume besides the complete triple index—General, Therapeutic and Authors quoted—at the end of the entire work. In the words of Dr. BENJAMIN WARD RICHARDSON (London Asclepiad), “the cost of the labor has been prodigious—up to the hilt of the indefatigable Dominie Sampson himself,”.....“everything that money could do has been done.” The very moderate cost at which these volumes are issued places them within the reach of every student; they furnish him with an encyclopædia of progress in “The Universal Medical Sciences.”

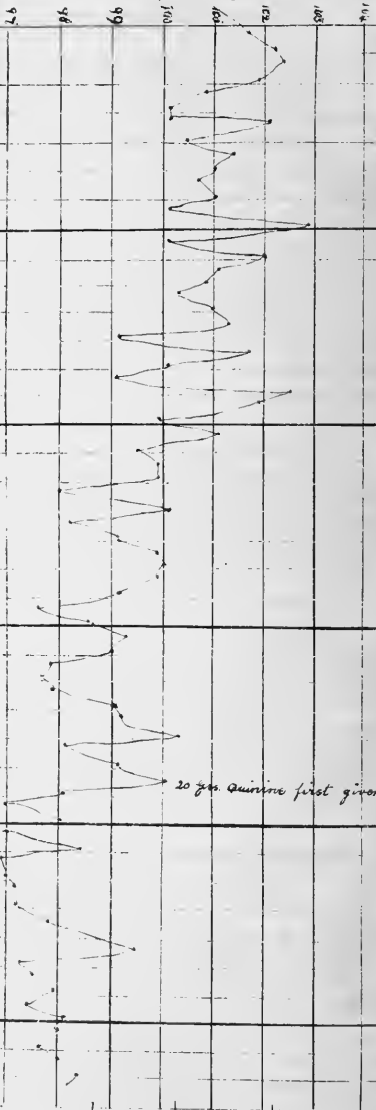
H. W. B.

A CASE OF MALARIAL FEVER IN WHICH THE LUNG SYMPTOMS MASKED THE TRUE NATURE OF THE COMPLAINT.

H. K., Chinese, aged 23, a seller of vegetables, admitted to hospital September 16. When then seen he had been ill a month. Formerly known to me as a particularly plump, strong, vigorous lad, but with a tendency to catarrh of the lungs. The contrast since last seen in health was very great, for on admission he was very anæmic, exceedingly weak, and wasted away to a shadow of his former self.

State on admission.—Breathing noisy and hurried, respirations 36. No flattening of chest-walls, and no dulness to percussion. Heart sounds normal. No pain on breathing. *Lungs.*—General catarrh, sub-crepitant mucous rales with wheezing being heard over both lungs, back and front. No increase of voice sound,

FAHRENHEIT'S SCALE



CENTIGRADE SCALE

SEP. 17 18 19 20 21 22 23 24 25 26 27 28 29 30
 OCT. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

105
104
103
102
101
100
99
98
97

11:20 11:15 96 108 112 104 98 100 102 108 104 96 102 108 112 110 76 76 72 78 72 73 78 104 94 92 112 74 75 74 72 98 84 76 78 76 73 98
 Pulse
 105 93 95 96 102 93 102 100 10 108 96 96 108 114 96 104 74 75 72 75 74 76 82 106 90 85 76 74 72 72 72 98 84 76 78 76 73 98
 Respiration
 36 28 32 36 28 30 28 28 26 26 20 28 24 18 20 24 26 20 20 16 18 18 18 24 20 20 20 21 22 18 20 18 20 17 18

Motions
 1 2 3 6 3 2 2 3 3 2 3 3 2 2 1 3 3 2 2 2 2 2 2 3 1 2 2 2 2 2 1

and no bronchial breathing, white and frothy expectoration. Temp. 101·6. Pulse 120. Tongue furred and dry. Skin moist. Bowels loose and watery. No abdominal tenderness. Sleeps badly. Eats badly, in fact vomiting up his food both before and after admission.

History.—Says the illness began with ague, which lasted for some time, and later on came cough and spitting. He had no ague at time of admission, and only once, a fortnight after admission, had he any suspicion of such.

An open mind was kept on the matter of diagnosis until the lung catarrh had cleared up. Patient was put to bed, kept on low diet, and given the following mixture:—Potassii iodidi gr. ii, sodii bicarbonatis gr x, tr. nux vomica min. xv, vini ipecacuanhal min. xv, aquam ad. oz. i, t.d.s.

Sept. 20.—It was noted that the right lung seemed in a somewhat worse condition. Over the lower half of the right lung in front, above line of liver dulness, there was some slight dulness, with inspiratory and expiratory crepitations. There was dulness over both bases, but whilst the left base conveyed to the ear the crepitation of simple congestion, over the right base the crepitations were decidedly harder, with some suspicious creaking. Still he complained of no pain there. The remainder of the lungs presented the ordinary conditions of general catarrh. To-day the diarrhoea was noted as less.

Sept. 21.—Sweats much at night. Ordered to be sponged with weak solution of acid acetic.

Sept. 23.—Diarrhoea ceased, motions approaching normal. Citrate of potash and bicarb. of potash substituted for the iodide of potash, the ipecac. being omitted.

Sept. 27.—Dulness and crepitations in front have now disappeared. Still some dry creaking over the right side. General catarrh of lungs slightly less. Ordered inhalations of eucalyptus, oil night and morning, and to have iodine applied to right side and base of lung. The night sweating has been so profuse that atropine has had to be resorted to in order to control it.

September 30th.—The temp. still keeps up, but out of all proportion to the local signs in the lungs. The ratio between pulse and temp. is about normal, and although there is one at base that I have called creaking, yet it is only doubtfully of pleuritic origin, and if it be so is probably more of the nature of a past inflammation,—indeed, to-day it seems to be resolving itself more into a very low-pitched, coarse rhonchus, distinctly inspiratory, and not, as in pleural, creaking, at the time of *fullest* expansion of lung. Further, a careful study of the temp. chart indicates a fairly regular tendency to go up every three days, and this, together with his history of ague, and the intestinal disturbance, rather points to a malarial fever. Ordered quiniæ sulph. gr. iv., pul. ipecac. gr. $\frac{1}{4}$, t.d.s. To-day complained of feeling shivery, and had some elevation of temp. but no marked aguish attack.

October 13th.—All cough has now ceased, and the lung signs are rapidly clearing up. Temp. has been, on the average, two degrees lower since taking the quinine, but still continues high. Ordered temp. to be taken every hour, so as to find out exactly when the rise commences. Finding a remission at my evening visit, gave 20 grs. quinine at once, to be followed by another 20 grs. in the early morning before the next rise.

October 14th.—Profuse sweating last night, only controlled by atropine. Temp. commenced to rise at 5 p.m., and at evening visit it was still rising. Although subnormal, the tendency was upwards, so gave 20 grs. of quinine at once, to be repeated in early morning.

October 19th.—Since last note, temp. has remained normal. Been taking a tonic of iron, strychnia and quinine, with small doses of ipecac. (grs. $\frac{1}{2}$ every night), to keep the bile circulation in good order. Lungs now quite clear, inhalations stopped. A slight rise of temp. to-day was at once checked by two 10-gr. doses of quinine. Has been up two days.

October 24th.—Discharged cured. Seen since; remains well, rapidly gaining flesh and colour.

Remarks.—(1.) Had I not had the opportunity of taking the patient into hospital, I should have thought this was a case of phthisis. The rapid breathing, the hurried pulse, the marked wasting and anæmia, the diarrhoea, and the general catarrh of the lungs, were all in favour of such a diagnosis. As it was, my mind inclined to its ending in phthisis, and it was only the experience that such a general catarrh might completely clear up, that caused me to keep an open mind. I have not the slightest doubt, though, that many such cases left alone *do* end in phthisis, catarrhal phthisis, and that this may be a partial explanation of the many cases of phthisis that come to our out-patient department. Further, had the patient been treated at a dispensary, seen only occasionally, with no opportunities of watching his temp. and condition carefully, and with one's orders only imperfectly carried out in his home, I doubt whether any but a very experienced man would have detected that it was a case of malarial fever.

(2.)—Some small experience has led me to differentiate a form of malarial fever, in which the fever runs high and the general condition is bad, a form (call it by what name you like) in which, in addition to intestinal catarrh, there is more or less implication of the lungs, and the general tendency of the patient is to asthenia. That this lung affection, unlike that of ordinary typhoid fever, may be at one time a severe general catarrh with hurried breathing, and at another time may show itself as a local patch, of what one fears may be pneumonia, with pain on breathing, a short, dry cough, and inspiratory crepitation to auscultation, but with a fairly slow pulse and with no hurry of respiration. I know it is usual to call all such cases "typho-malarial," under which name is certainly grouped

several types of malarial fever; and different observers have different notions of what they mean by the name (*see* discussion in *Medico-Chirurgical Transactions*). We do not want names, we want descriptions, as faithful as the capacity of the various observers can make them, of the various types of malarial fever.

(3.)—There is a right and a wrong way of giving quinine. I feel sure that if we always give quinine with a clear idea as to *when* to give it and in what quantity to give it, we should rarely find a fever run away with us. Speaking generally, the best time to give quinine is, as we all know, during a remission. This does not mean that in a case of high fever we must wait for a remission before we give it. The old school pushed this practice so far that many a patient was lost whilst his doctor was waiting for the opportune moment to give quinine, but it does mean that we should seize the moment, when there is a slight remission, to put in a large dose of quinine, and this moment can only be seized by taking the temp. every hour. A routine practice which I consider very important, when we are able, previous to a course of quinine, is to clear out the bowels with a good cholagogue purge. This is a very important preliminary step, and at all times it is good routine practice to combine small doses of ipecac. ($\frac{1}{4}$ to $\frac{1}{2}$ gr.) with your quinine, to act on the portal system, in which, research has led us to suppose, the malarial poison circulates.

S. R. H.

NOTES AND ITEMS.

MEETING OF THE MEDICAL MISSIONARY ASSOCIATION, SHANGHAI, 1890.

The following gentlemen (in addition to those who have already promised) will write papers for the meeting. Dr. MCFARLANE, London Mission, Chichou, — "Itinerant Medical Work;" Dr. JAS. B. NEAL, A.P.M., Tung Chow Fu (Chefoo), — "Training of Medical Students;" Dr. A. P. PECK, A.P.M., Pang Chuang, North China, — "Itinerant

Medical Work." *The Committee on Medical Nomenclature.*—It is feared that Dr. HUNTER will not be able to attend the meeting. By request, Dr. DOUTHWAITE, C.I.M., Chefoo, and H. T. WHITNEY, M.D., A.B.C.F.M., of Shaowu, Fukien Province, have been added to the above committee, and are requested to correspond with Dr. KERR and Mr. JOHN FRYER, in order to take their share of the work with the other members.

Drs. J. G. KERR and J. C. THOMSON have a Vocabulary — English and Chinese — in course of preparation. Dr. KERR, the first President of the Association, is also preparing a paper for the meeting,—"Influence of Medical Missionaries in elevating the moral tone of the Medical Profession."

The Chinese Scientific and Industrial Magazine.—It has been determined to continue this publication under the above name and form, but on a more extended scale—as a quarterly. Each number will contain about 100 pages, interspersed with as many engravings as can be obtained, and will be issued from the Chinese Scientific Book Depot, 472, Hankow Road, Shanghai, 25 cents per number or one dollar a year, including the usual Chinese cloth case. The Medical Department will be one of its prominent features. The Medical Missionary Association of China are invited to contribute to this magazine articles in Chinese on Medical and kindred subjects. It is suggested that the Association use the columns of the Magazine as its organ for communicating with the Chinese. [*Note by Editor.*—The whole subject of the need for a Medical Missionary Journal in Chinese for the Chinese, will be discussed at the meeting at Shanghai in 1890; in the meantime, we cannot do better than to avail ourselves of the invitation to use the columns of the *Chinese Scientific Magazine*. Contributions are to be sent to Mr. JOHN FRYER, Kiangnan Arsenal, Shaughai.

At the last meeting of the Medical Missionary Association of China, Mr. JOHN FRYER was unanimously elected an honorary member of the Association.

FOR SALE.

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Can be curable for the sicknesses of Male, Female, or Boy.

DIZZY :—Use to put or wipe few drops on the forehead, bothsides under eye-brows, noseholes, and bothsides the back of ears.

FEVER :—Wipe on the forehead, and noseholes.

FIT :—Wipe most to the noseholes, and drink few drops mixed with tea.

GIDDY :—Wipe bothsides of forehead, and noseholes.

GOUT or GOUTSWOLLEN :—Wipe bothsides of forehead noseholes and much to the breast.

HEADACHE :—Wipe on the forehead and noseholes.

Beleive us,

CHOY THOONG SUNG,

Tai-pin Gate outside Brass Smith Road,
CANTON.

TENTH INTERNATIONAL MEDICAL CONGRESS AT BERLIN IN 1890.

The following named members of the Medical Missionary Association of China have been duly elected as delegates to the Tenth International Medical Congress at Berlin:—Drs. VON S. TAYLOR and DUNCAN MAIN, C.M.S., Dr. A. L. MACLEISH, English Presbyterian Mission, Dr. D. CHRISTIE, United Presbyterian Church of Scotland, Dr. A. P. PECK, American Presbyterian Mission, Dr. E. REIFSNYDER, Woman's Union Mission, Dr. WM. A. DEAS, of American Protestant Episcopal Church, and Dr. S. A. HUNTER, A.P.M., Chefoo.

M. GALE, M.D.,
Secretary,

Med. Miss. Assn. of China.

PEBBLES.

The reason that some men can't make both ends meet is because they are too busily engaged in making one end drink.

"Doctor, will you let me know how much I owe you?" "Oh, my good woman, I know you are not in easy circumstances, I will not charge you anything for my trouble." "Yes, that's all very well; but who is to pay the apothecary?"

ARRIVALS.

Arrived in Shanghai, September 9th, Dr. and Mrs. J. GOLDSBURY, A.B.C.F.M. Mission, Shansi; Dr. and Mrs. M'BRIDE, and two children, for same Mission, Kalgan.

E. H. MACKLE, M.D., and wife, American Presbyterian Mission, for Lien Chow Foo, N. W. Canton Province; H. N. KINNEAR, M.D., and wife, A.B.C.F.M., for Foochow; E. R. WAGNER, M.D., A.B.C.F.M., Kalgan; J. W. MCKEAN, M.D., wife and son, of A.P.M., for Chieng Mai, Siam. All arrived in the month of October.

Arrived in Shanghai, November 6th, Dr. E. R. JELLISON, for Methodist Episcopal Mission, Nankin.

MARY BROWN, M.D., of University of Ann Arbor, Michigan, A.P.M., for Wei Hien, November 14th, 1889, Shantung.

CHAS. F. JOHNSON, M.D., of Rush Med. College, Chicago, A.P.M., for Wei Hien, November 14th, 1889, Shantung.

DEPARTURES.

From Shanghai, October 25th, Dr. A. P. PECK, A.B.C.F.M. Mission, P'angchwang, for U.S.A., via Europe.

Dr. GULICK, reports himself from Cal. as slowly improving; he feels, however, it is very probable, that in order to secure a decided and permanent benefit, a more lengthened stay may be found necessary than he at first thought expedient; this, he hopes to obtain in a drier and more invigorating climate than the one in which he is now.



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COMPRESSED TABELLÆ OF VARIOUS DRUGS.

These Tabellæ will be found very convenient for the taking of many simple medicines, both from their portability and the ease with which an exact dose can be administered. The following are a few of the more recent additions:—

ANTIPYRIN has now been employed in many thousand cases of typhoid fever, pneumonia, acute articular rheumatism, and other diseases associated with high temperature, with the most satisfactory results.

ANTIPYRIN TABELLÆ (5 grains in each).

Its value will be appreciated when given for rheumatic or gouty affections accompanied by painful arthritis, or still better, in nervous conditions associated with painful manifestations. Administered in doses of from 1 to 1½ drachms in the twenty-four hours, the pain almost invariably yields in the course of from two to four days without any undesirable effect being produced on the heart or kidneys. Neuralgia, migraine, sciatica, lumbago, and paroxysmal pains generally, are relieved.

PHENACETIN has been recently introduced for use in the same class of cases as Antipyrin. It is a true antipyretic in doses of from three to eight grains. The effects are mild, the sweating very slight and no cyanosis has been observed, even after the repetition of several eight-grain doses.

PHENACETIN TABELLÆ (5 grains in each).

Phenacetin possesses the same analgesic properties in neuralgia and paroxysmal pain as Antipyrin.

SULPHONAL has lately come to the front as a valuable hypnotic.

SULPHONAL TABELLÆ (5 grains in each).

Given to patients suffering from restlessness or insomnia, they fall into a tranquil and sound sleep in from half an hour to two hours, lasting from five to eight hours. Digestion, pulse and temperature were unaffected. It appears to be most efficacious in cases of sleeplessness in nervous subjects. The average dose for adults is from 15 to 20 grains.

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Wholesale Price Lists on Application.

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Thereby insuring the Most Effective Results.

We feel confident that few physicians will prescribe any of the more powerful remedies, such as Aconite, Morphine, Digitalis, Arsenic, etc., either in powders or in solutions, when fully aware of the advantages presented by our TRITURATES, their accuracy and convenience in administration, coupled with the absolute freedom from danger in prescribing, always attending to a greater or less extent the dispensing of dangerous drugs in the form of powders, drops, or large doses in solutions.

The TRITURATES are absolutely exact, and will keep indefinitely; they can be readily swallowed with a mouthful of water, or, if smaller doses be required for infants, the tablet can be reduced to a fine powder by simply crushing with a knife, or the thumb-nail.

Our circular (which it will give us pleasure to forward) gives in detail all the claims we make for this series of preparations, together with a list of all the combinations. It embraces almost every drug in popular demand, and the doses are so graduated as to meet every indication. The following are a few of the active agents in every-day use:

Price per bottle, 500		Price per bottle, 500	
ACID ARSENIOS, $\frac{1}{60}$ gr.,	\$0.40	EXT. PILOCARPUS FLD., $\frac{1}{2}$ min.,	\$0.45
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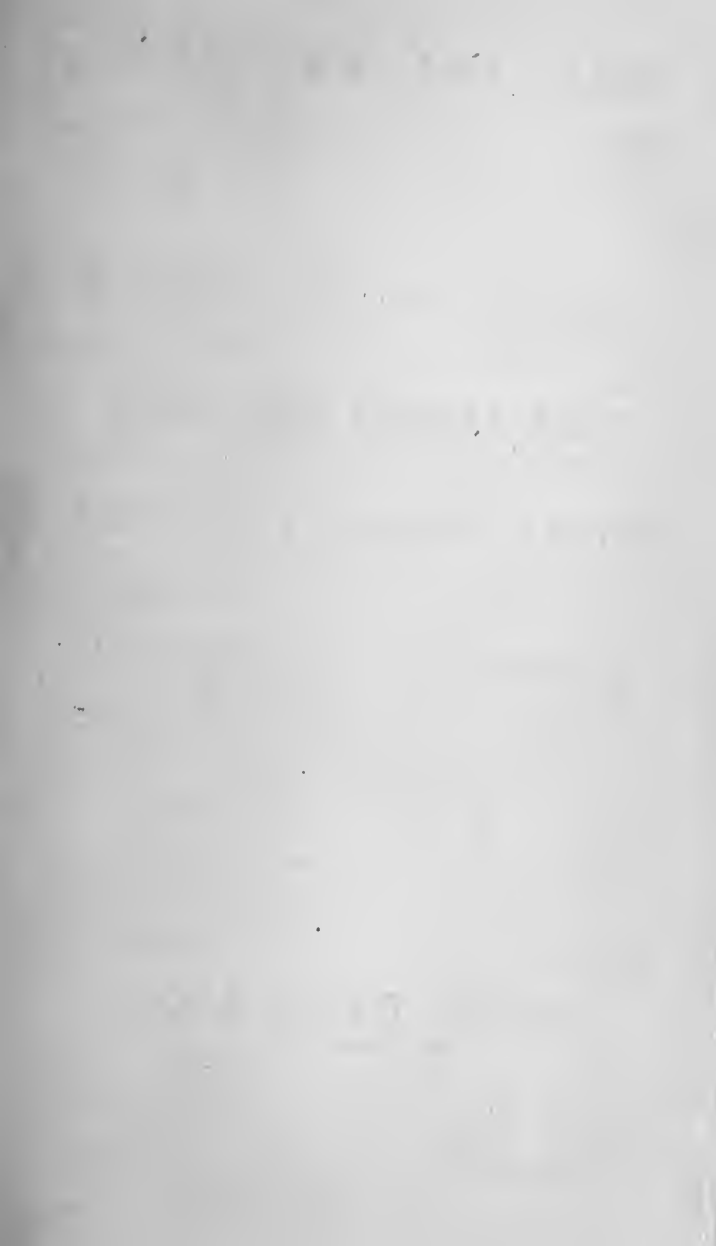
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China Medical Missionary Journal.

VOL. IV.

MARCH 1890.

No. 1.

FIRST IMPRESSIONS AND EXPERIENCES IN CHANG-POO.

By J. HOWIE, M.B., C.M.

Chang-poo may be little known, even to the readers of the *China Medical Missionary Journal*. It is not a densely-populated city. I have asked several well-informed Chinamen as to the probable number of inhabitants. The answers have been amusing and various. One man looked at me with a puzzled expression, as if I had asked the distance of some far-off planet or the diameter of the sun. A second gentleman thought there might be 100,000. Another, more cautious fellow, put it down as 30,000, and I should think he is about right. A large section of the city is uninhabited, having been devastated by the "long-haired rebels" some twenty years ago. Patches of ruins here and there, mouldering away under the huge banyan trees, give a quiet, sacred aspect to the place. Nature has had her own way with some of the old, roofless houses, and seems as if she were making strenuous endeavours to teach the careless untidy inhabitants, lessons of sweetness and grace. Some of the people appear to have taken the hint, and have planted small, carefully-kept gardens here and there among the ruins.

The city is of a most irregular shape, and reminds me of the drawings of white blood corpuscles given in some of the books on physiology. The gateways are like entrances to pig-styes enlarged twenty diameters. The streets are narrow and filthy and in a chronic state of dirt-congestion, that even the chair-bearers pick their way along more carefully than usual. The city boasts of several schools, and a very large portion of the people might be said to be

aristocratic. Numbers seem to have settled in the place, after having made a small fortune. Now and again you meet with a man who has been abroad, but by far the larger number have never been beyond the limits of the Chang-poo region.

The south part of the city lies low, and is a hot-bed for malaria, dysentery and cholera. Fruit-trees are plentiful and luxuriant. Looking at the city from a hillock outside the walls, only a few houses can be seen, the trees being so thickly planted. The city lies in a cup which has a deep chip on its south brim, through which one almost imagines he can see the blue sea. We are inland only about six miles. The surrounding valley bears rich crops, almost the whole of the soil being under careful cultivation. A high, rugged range of mountains to the south would make splendid backgrounds for scores of interesting sketches. Amoy is about 40 miles to the north-east. The city is the central market-town of a very large and populous region.

For six or seven years earnest attempts were made to purchase ground for the erection of a chapel. The people were very hostile, and repeatedly stoned and mobbed missionaries who entered the city for a night. An old house was hired in a main street, and under the greatest difficulties work was carried on for some time. Afterwards a larger and less-exposed place was found and rented for some years. There were complications and wranglings over this matter which I am unable clearly to record, only having appeared lately on the scene. Those who know the struggles from the beginning, have told me some very thrilling incidents of their treatment by the mobs, in this old, rickety chapel, in the Yamên, and in the "Hotels" of the city. The first attempt to purchase land was met with wild opposition from the literary men and the Yamên people. The man who sold us the ground was seized and beaten, and for several months kept in prison; false witnesses were whipped up, who swore that the ground belonged to another man, the other man proving afterwards to be quite an impostor. The case was put before the mandarin, and the upshot of the matter was that we were left with a small portion of ground only, about one-fourth the size of the original piece. Still the opposition kept up. A band of the stronger and more patriotic gentlemen of the place vowed that they would do everything in their power to keep out the foreigners. We were suspected of some secret design to seize their ancient city.

Some nine months ago a sudden attempt was made to build on the small piece of ground above mentioned. To our surprise there was no outcry, and a house was roofed and finished. I am sitting in it now. The thing was done so suddenly that the wise men of the place were only rubbing their eyes and looking round the wee cottage when we began to inhabit it. Our appearance and furnishings tickled the fancy; they came about us and melted like ice in a

summer day, before the Galvanic Battery, the Microscope, and the performing of a few simple surgical operations. For weeks every afternoon, we were visited by four or five literary or well-to-do gentlemen, robed in their finest. Crowds used to gather round the house, and I always found the best line of action was to go out with my instrument case and pull as many teeth as the people were willing to part with. So that it was no uncommon thing to see a crowd of about 100 people with every tenth man bowed and spitting blood, with one or two sympathising brethren round him enquiring as to the state of the wound and the manner in which it was received. I believe these laborious days of teeth-pulling were the means of breaking down much prejudice. After a while I began to bandage legs, open abscesses, and remove small tumours. Giving Chloroform under the trees was a sight! You would have thought that every man standing round had suddenly gone off with the patient, the stillness was so striking. Our native pastor preached to the sick and told them our motives in coming to live in their midst.

One day, a man was laid at our door. I heard his moans and went out. There was no one beside him; one or two fellows looked at him "afar off." He was emaciated, dirty, thin and sallow. I never saw a more miserable-looking man. His left leg was in the following condition :—

A large sloughing and ulcerating wound; both tibia and fibula fractured, and the bones protruding, the wound smelling so badly that the very Chinese who stood "afar off" held their noses; the lower part of the limb was in a state of commencing gangrene. I got the man removed to a house near by, fitted up a rough bed and laid him on it. He was so low, that I could not make up my mind to amputate there and then. I washed and dressed the wound; my bandages and antiseptics being few, I had little to come and go upon. He pulled through the night. Still I could not make up my mind to cut. I felt my position a very difficult one. Should I operate and the man die, his death would be put down to my door! The second afternoon arrived. Just as the day was beginning to darken, the man who was asked to tend the patient came along to tell me that the wound was smelling very badly, and that the man was dying. I gathered my instruments together, took one student and two native medicine men (Christians) with me, and went, determined to amputate. Mr. GREGORY was in Amoy, so I was the only foreigner about.

The man was lying in a dirty shed, and a crowd of about 100 people soon packed the open space in front. All through the operation there was perfect stillness. There was no blood lost, but I told the folks standing round that the chances were that he would die. I may say he was a confirmed opium-smoker. His smoking had brought him to beggary. I have not time to enter into the details of the result of the operation. For a fortnight after, my hopes were

small. He was daily visited by friendly and unfriendly critics. Opium was smuggled in to him, till at last I had to make very strict rules about his food and visitors. Part of the flaps sloughed, the healing was long and wearisome, but to-day the man is a walking wonder to all who saw him, and a telling proof of the fact that we have come to this city not to destroy but to save.

(To be continued.)

LACKER POISON.

By H. T. W.

Many Europeans and some Chinese frequently suffer from the poison of native varnish, caused usually by handling newly-lacquered furniture. This varnish is made from the sap of the Poison Sumach (*Rhus Vernicifera*) which grows in this Province (Fuhkien) as a bush about as large as the common sumach (*Rhus Globra*) in New England, U.S., and which it also resembles in respect to leaf and stalk, but has not the sumach cone.

The poison depends upon a volatile acid in the varnish called *tsihic acid*, from the Chinese name of the varnish *tsih*. In Japan Mr. ROMYN HITCHCOCK calls it *Urushic Acid*, from the Japanese native name *urushi*, and gives its chemical formula as $(C_{14} H_{18} O_2)$.

The poison produces an inflammation of the skin, which runs a course of six to ten days, according to severity, and followed by desquamation of the part affected.

No very effectual remedy has yet been discovered for this poison, but its severity, and often intense itching can be ameliorated by the use of external applications.

The *Lead and Opium Wash* is good to allay the burning sensation and to some extent the itching.

The writer has suffered several times from this poison, and, in addition to the *wash*, also used a mixture of olive oil one ounce, carbolic acid ten drops, and laudanum twenty drops, as a local application, applied twice daily. In the July 1889 No. of the *Therapeutic Gazette*, Prof. PRENTISS, of Columbia University, D.C., gives a very good prescription, viz, carbolic acid one part, linseed oil and lime water each 50 parts; this is applied constantly to the inflamed surface, and in addition a 10 per cent solution of carbolic acid is applied to parts itching badly.

Prof. PRENTISS also uses the above prescription with good results for burns, erysipelas, and the bites and stings of insects.

An important preventive measure in cases of newly-varnished articles is, after they are *well dried*, to wipe thoroughly, once a day for two or three days, with a cloth wrung from *hot* water. This process seems to destroy the poisoning property of dried varnish, perhaps from the moist heat evaporating the residue of volatile acid. However this may be, the practice is effectual, as we have several times tested it.

We have never known of its poisoning after being used two or three years, and in the recent state, if those susceptible to its effects will take the above precaution, they will doubtless be able to use articles of furniture, etc., with comparative safety.

MEDICAL TERMS.

By H. T. WHITNEY, M.D.

In looking forward to a standard Medical Vocabulary or, what would be still better, an Anglo-Chinese Medical Dictionary, it seems appropriate to early offer a few suggestions in regard to the principles which should govern, and certain terms now in use that should be replaced by more suitable ones; also the shortening of terms unnecessarily long.

In a previous No. of this Journal we called attention briefly to this subject, suggesting that accuracy, conciseness, and euphony should be the order in constructing Chinese terms. It need only be added that the Chinese as a people studiously avoid long and awkward terms. Their literature; their thousands of proverbs, crystalizing ideas and facilitating memory; their classic composition, despising anything colloquial; their language in debate, discourse, essays, or giving instruction; all evidence their inherent aversion to bungling and inconvenient terms.

This element in Chinese character should be recognized if we wish to make Western science attractive. And as medical science naturally contains more "jawbreaking" terms than any other, we need to be specially careful. The one difficulty above all others which we have experienced in teaching Chinese medical students is, notwithstanding their excellent memories, their inability to remember accurately, or readily, our long unrythmical names.

The *fons et origo* of medical terms begin with Anatomy, and if we start wrong here we shall limp throughout the whole course of medical literature. And as the base of anatomical terms rests upon osteology, it is of the utmost importance that the names of the bones, and the terms used in describing the

bones, should be as short and simple as possible; otherwise, when we come to make combinations for names of other tissues of the body, our terms become long and unwieldy.

Fortunately, the names of most of the bones in Chinese contain only one character besides the general character for bone; so that the *changes* necessary in Osteology are comparatively few. Quite a number can be shortened by eliding one or more superfluous characters without *changing* the name; and most of those requiring *change* are unimportant bones, as those of the carpus and tarsus, and are less frequently used in combination with other parts.

To make the subject more intelligible, we will give a list of those requiring elimination and then call attention to them separately.

Thus from the Temporal bone 耳門骨 *Ē men kuh* elide *Men* leaving it *Ē kuh*.
From the Mastoid portion 馬乳骨 *Ma ū kuh* clide *Ma* leaving it *Ū kuh*.

„	Petrous	„	三角石骨	<i>San koh shih kuh</i>	elide	<i>San koh</i>	leaving it	<i>Shih kuh.</i>
„	Sphenoid bone	蝴蝶骨	<i>Fu tieh kuh</i>	elide	<i>Fu</i>	leaving it	<i>Tieh kuh.</i>	
„	Ethmoid	„	羅篩骨	<i>Lō sai kuh</i>	„	<i>Lō</i>	„ <i>Sai kuh.</i>	
„	Nasal	„	鼻梁骨	<i>Pi Liang kuh</i>	„	<i>Liang</i>	„ <i>Pi kuh.</i>	
„	Lachrymal	„	淚管骨	<i>Lai kuan kuh</i>	„	<i>Kuan</i>	„ <i>Lai kuh.</i>	
„	Vomer	„	犁頭骨	<i>Li t'ao kuh</i>	„	<i>T'ao</i>	„ <i>Li kuh.</i>	
„	Coceyx	„	尾閭骨	<i>Wei lū kuh</i>	„	<i>Wei</i>	„ <i>Lū kuh.</i>	
„	Scapula	„	肩胛骨	<i>Kien kiah kuh</i>	„	<i>Kien</i>	„ <i>Kiah kuh.</i>	
„	Radius	„	轉肘骨	<i>Chwen chiu kuh</i>	„	<i>Chiu</i>	„ <i>Chwen kuh.</i>	
„	Ulna	„	正肘骨	<i>Chiu chiu kuh</i>	„	<i>Chiu</i>	„ <i>Chiu kuh.</i>	
„	Femur	„	大腿骨	<i>Ta t'ui kuh</i>	„	<i>Ta</i>	„ <i>T'ui kuh.</i>	
„	Patella	„	膝盖骨	<i>Sih kai kuh</i>	„	<i>Kai</i>	„ <i>Sih kuh.</i>	
„	Fibula	„	輔腿骨	<i>Fu t'ui kuh</i>	„	<i>T'ui</i>	„ <i>Fu kuh.</i>	
„	Astragalus	„	踝輪骨	<i>Hwa len kuh</i>	„	<i>Len</i>	„ <i>Hwa kuh.</i>	
„	External Cuneiform bone	外尖斧骨	<i>Wai chen fu kuh</i>	elide	<i>Wai chen</i>	leaving it	<i>Fu kuh.</i>	
„	Sesamoid bones	芝麻骨	<i>Chi ma kuh</i>	elide	<i>Chi</i>	leaving it	<i>Ma kuh.</i>	

The shortening of the name of the Temporal bone by eliding *men* will not conflict with the names of the bones of the middle Ear, as they have their individual names. The *ma* in the mastoid portion of the Temporal bone, and the *San koh* in the Petrous portion, have no special significance and can be readily dispensed with. The *Fu* in the Sphenoid bone and the *Lō* in the Ethmoid can be elided for a like reason. Two characters of synonymous meaning should not be used in a single name.

The *Liang* in the Nasal bone, *Kuan* in the Lachrymal, *T'ao* in the Vomer, *Wei* in the Coccyx, and *Kien* in the Scapula, are entirely superfluous and should be rejected.

Chiu in the Radius is evidently incorrect as well as being unnecessary; and *Chiu* is not needed for the Ulna.

Ta is not needed for the Femur if the Tibia has its proper name 脛 *Kin*. *Kai* is not required in Patella as a part of the name, though it might be used in other connections, when *Kuh* would not be required.

T'ui in Fibula and *Len* in Astragalus are both unnecessary. The *Wai chen* can be elided from the External Cuneiform if the names of the Internal and Middle Cuneiform are changed as proposed below. *Ma kuh* is sufficient for Sesamoid bones without using *Chi*.

The above eliminations can be readily made without detriment to the names and would greatly facilitate the construction of other terms.

There still remain fifteen bones in which a change of name is essential to complete the plan proposed above. In some cases it is required for the sake of greater accuracy, in others to approach nearer a literal translation, and in all cases for the sake of brevity.

In some cases the change can be effected by adopting synonymous Chinese native names but shorter.

The names of the bones are as follow:—

Parietal	bone	顱頂骨	<i>Lu tin kuh</i>	Change to	圍骨	<i>Wei kuh.</i>
Turbinated	„	水泡骨	<i>Sui p'ao kuh</i>	„	卷骨	<i>K'uen „</i>
Superior Maxillary	„	上牙床骨	<i>Shang ya ch'ang kuh</i>	„	頰骨	<i>K'iu „</i>
Inferior	„	下牙床骨	<i>Hia „</i>	„	頤骨	<i>Hoh „</i>
Innominate	„	無名骨	<i>Wu min kuh</i>	„	髌骨	<i>K'wa „</i>
Clavical	„	鎖柱骨	<i>Sö chü kuh</i>	„	匙骨	<i>Shi „</i>
Humerus	„	臂骨	<i>Pi kuh</i>	„	肱骨	<i>Nao „</i>
Semilunar	„	半月骨	<i>Puan v'ieh kuh</i>	„	弓骨	<i>Kung „</i>
Trapezium	„	斜長方骨	<i>Sie ch'ang fang kuh</i>	„	異骨	<i>I „</i>
Trapezoid	„	斜方骨	<i>Sie fang kuh</i>	„	劈骨	<i>P'ih „</i>
Unciform	„	鈎骨	<i>Keu kuh</i>	„	鳩骨	<i>Keu „</i>
Tibia	„	小腿骨	<i>Siao t'ui kuh</i>	„	脛骨	<i>Kin „</i>
Scaphoid bone, of foot	„	船骨	<i>Ch'wen kuh</i>	„	舟骨	<i>Chiu „</i>
Internal Cuneiform bone	„	內尖斧骨	<i>Noi chen fu kuh</i>	„	鉞骨	<i>K'i „</i>
Middle „ „	„	中尖斧骨	<i>Chung chen fu kuh</i>	„	斤骨	<i>Kin „</i>

The advantage of changing the name of the Parietal bone is that it is an equivalent translation from the English, is shorter, and does not conflict with the use of 顱 *Lu* for cranial, which is very important.

The first two reasons are also true of the Turbinated bones, which is sufficient to justify a change.

The two Maxillary bones have long, awkward and inconvenient names. But K'ang Hi's Chinese Dictionary, the standard for China, gives 頤 *K'iu* as the name of the bone between the Malar and 頰 *K'iah* regions, and as the Superior Maxillary is the only bone in that region it can be used as a synonymous name for this bone, and has the advantage of being native, short, and easily combines with other terms.

The same authority gives 頤 *Hoh* as the bone immediately below the ear, and as the Inferior Maxillary is the only bone in that region it becomes synonymous with the long name in common use, and can be used as a classic name, for the same reasons that apply to the Superior Maxillary.

The Innominate, or Nameless, bone has a clumsy Latin name and does not improve much by translation into English, or Chinese as now used. The Chinese use 髌 *K'wa* to indicate these pelvic bones, so that this term would be readily understood, and it is short and convenient.

Returning now to the Upper Extremity, we are unable to see why the English name of the Clavicle should not have been literally translated, being simple and easy for combination and far preferable to the one adopted. It means the "key bone," which in Chinese is 匙骨 *Shi kuh*.

In regard to the bones of the arm and forearm there seem to be some confusion and uncertainty.

But according to the Chinese dictionary the character 臂 *Pi*, which has been used for the Humerus, refers primarily to the forearm, *i.e.*, the region between the elbow and wrist, and 肱 *Nao* is the humeral region, *i.e.*, the space between the shoulder and elbow.

It was unfortunate also in adopting 肘 *Chiu* to represent the bones of the forearm, as this character refers particularly to the elbow or olecranon process, the head of the ulna. But as it has gone into use it can be retained to represent the whole ulna bone as well as the olecranon process, and eliminate it from the Radius as indicated above; in that case 臂 *Pi* can be used to represent our "forearm."

It is very awkward and wholly unnecessary to use 腿 *T'ui* for the thigh and leg bones also. *T'ui* means thigh without any further qualification and is so used in this part of China. Besides, 脛 *Kin* is the proper term for Tibia instead of 小腿 *Siao T'ui*, and the Fibula needs only to be literally translated, *i.e.*, 輔骨 *Fu kuh*, leaving out the *T'ui*, which is entirely superfluous. This would leave 腿 *T'ui*, thigh, to its proper use, without requiring 大 *Ta* to specify any particular *T'ui*.

The remaining bones, 4 carpal and 3 tarsal, requiring a change of name, it makes but little difference what they are called provided they have a short, convenient name. Thus to make the plan of the simplest nomenclature complete for the bones, the semilunar *Pwan rieh kuh* can readily be changed to 弓骨 *Kung kuh*, and would be a more literal translation, as the original idea was not semilunar but crescentic, which *Kung* more nearly represents. The Trapezium 斜長方骨 *Sie ch'ang fang kuh* can be properly called 異骨 *I kuh*, from its great irregularity of shape, and 劈骨 *P'ih kuh* would be appropriate for the Trapezoid, in place of 斜方骨 *Sie fang kuh*, owing to its wedge shape. 鳩骨 *Keu kuh* would be more appropriate for Unciform than 鈎骨 *Keu kuh*, as this latter term is already in use for Sacrum.

Of the tarsal bones, it would be more accurate to use Navicular than Scaphoid, as we have a scaphoid in the carpus; and to avoid the liability to confusion in Chinese, 船骨 *Ch'wen kuh* should be changed to 舟骨 *Chiu kuh*, as more nearly representing the *navicular* idea.

The names of the cuneiform bones, given on account of their shape, can be easily simplified by calling the Internal cuneiform 鉞骨 *K'i kuh*, adz bone; the Middle cuneiform 斤骨 *Kin kuh*, hatchet bone; and the External cuneiform elide the 外尖 *Wai chen*, as given above, leaving it 斧骨 *Fu kuh*, axe bone. There is one other bone, the sacrum, it may be well to notice. While 鈎骨 *Keu kuh* is appropriate enough, *Fang* is its native name, and there are good reasons why this should be the one adopted. It would be more readily understood, it is concise, euphonious, and easily combines with other terms, of which there are a large number, connected with this bone. This term and those of the other pelvic bones, as well as those of the other tissues and organs of the pelvis, are in constant use in teaching Obstetrics, Surgery, etc., making simple and easily intelligible terms here a great desideratum.

The changes necessary to reduce all the bones in the system uniformly to two characters each have thus been indicated and our own preference of change signified.

The advantages of these changes are: they are more simple and concise, thus making uniform the only correct basis upon which to form a medical nomenclature; they embrace more native names and approach more nearly a literal translation of the foreign term; they are more classical, correct, and euphonious; they materially shorten a large number of terms in constant use, so that of the 5,000 Anatomical and Physiological terms already collected the large majority contain only two, three, and four characters each. Again, these changes not only apply to teaching and preparing text-books, but will affect all subsequent medical literature.

While changes in the Osteological system will simplify to a large extent the terms in other systems, yet there are several which will not be affected, and the more important ones are referred to below :—

The Pharynx is a region constantly referred to in Medicine, but unfortunately has a bungling name and combines badly with other terms. It takes its name 食脰頭 *Shih kwan t'ao* from the œsophagus 食脰 *Shih kwan*, calling it the head of the œsophagus. But 咽 *Yen* is the native and proper term for œsophagus. However, the pharynx is not strictly the head of the œsophagus. The stomach might with the same propriety be called the head of the small intestine, or the larynx, the head of the trachea.

The Chinese probably have never recognised the pharynx only in so far as 喉 *Heu* or 嚨 *Lung* represent it, but as *Lung* is synonymous with *Heu* it can be discarded from the name. The Chinese dictionary says *Heu* is at the root of the tongue and controls it, it is also said to *Heu* the 氣 *K'i* breath, *i.e.*, controls it in the same way that *Yen* is said to *Yen* liquid, *i.e.*, swallow it, thus enabling us to fix definitely the name of the œsophagus. From this fixing of the location of *Heu* at the base of the tongue, and remembering their ignorance of the anatomy of those parts, it seems more than probable that the pharynx is the region designated, and Dr. HOBSON was undoubtedly correct in choosing *Heu* to represent the pharynx. It is short and convenient for combination, and we prefer it to *Shih kwa T'ao* or *Yen T'ao*.

The use of 喉門 *Heu men*, pharynx door, or fauces, is also consistent with the use of *Heu* for pharynx.

肛 *Kang*, for large intestine or colon, is a handy and convenient term and far better than the one in use.

It is used by the Chinese for colon, and would agree with their use of 肛門 *Kang men*, colon door for anus, but incorrectly translated rectum. This would leave 腸 *Ch'ang* for small intestine, and in some cases it could be used for intestine in general and greatly simplify the nomenclature of those parts.

Another very important character is 脰 *Kwan*, where 管 *Kwan* is now in general use. Intelligent natives condemn the use of 管 *Kwan* except for bone canals. Its meaning is properly a dry tube with hard walls, as indicated by having the bamboo radical, and hence its use for a classifier of tubular things such as pipes, tubes, guns, quills; and tubular instruments, such as pipes, flutes, flageolets, etc., while 脰 *Kwan* with the flesh radical has a proper medical use, and signifies hollow parts with soft or fleshy walls, and is appropriately applied to vessels, ducts, etc.

These two characters are important for medical use, and if rightly employed are both significant and valuable.

In the New Vocabulary 管 *Kwan* is used only for the different canals of bones, while 脂 *Kwan* is employed for all vessels, ducts, tubes, etc., in the fleshy parts and in the bone canals, *i.e.*, all vessels, ducts, etc., lined with mucous membrane, or epithelium. Thus all arteries, veins, and lymphatics; the alimentary, biliary, catamenial, lachrymal, respiratory, seminal, and urinary tracts; and other ducts, canals, tubes, etc. This distinction is very helpful in teaching, and aids the student's memory.

The four characters 腮, 頰, 頰, 頤, *Sai, Kiah, Hai, and I*, seem to be used with some confusion of meaning.

According to the Chinese dictionary, *Sai* is evidently appropriate to designate the region immediately front of the ear and covering the parotid space, so that the internal maxillary artery and parotid gland might take their name from it. *Kiah* we understand to include the space between the parotid space and corner of the mouth, or the region covered by the buccinator and masseter muscles.

Hai evidently refers to the submaxillary region, *i.e.*, the under surface of the jaw from the chin back to the angle of the jaw, so that 骸核 *Hai Huh*, for submaxillary gland, is sufficient without the 下 *Hia*, under, as the idea of under resides in *Hai*.

I seems to mean the chin proper, and not synonymous with *Hai*, neither does *Hai* mean chin with us, nor can it be made to mean chin from the Chinese dictionary.

The Chinese are not always clear in the use of their own medical terms; they have many synonymous terms, and many we probably shall never know the exact meaning of, as their best medical literature is ancient, the practice of medicine as well as medical education has greatly degenerated, and few, if any, at present can explain the exact use of many of the terms we find in their dictionary.

頸 *Kin* and 項 *Hiang* are in danger of becoming confused in their use, much as our *collum* and *cervix*; *collum* originally means the neck proper, but has come to be used almost exclusively for *nape*; while *cervix*, originally the nape, is now used for all parts of the neck but the nape. So 項 *Hiang*, nape, while confined to its proper use by some, by others has been used for all parts of the neck, and 頸 *Kin*, neck, has been ignored altogether. As we find no authority for such usage, ought we not to always employ them in their natural and proper signification?

There is also a tendency to use promiscuously such characters as 網 *Wang*, 羅 *Lō*, 核 *Huh*, 結 *Kieh*. It would be much better to give them a definite use as medical terms.

Thus *Wang* seems most appropriate to use for *vascular plexus*, while *Lō* would be more appropriate for *nerve plexus* or any other than *vascular plexus*.

Kieh has been chosen for *ganglion* and *Huh* for *gland*, and as they are appropriate it seems a pity to mix them up.

筋 *Kin* has been objected to as inappropriate for *nerve*, but when 腦 *Nao* is connected with it, it is as intelligible as any term, and perhaps more so, since the Chinese already employ it though having but little idea what it means.

In any case *Nao* would also have to be used, so that nothing would be gained by using 線 *Sien* or 絲 *Sz*, either for brevity or clearness. Besides, we need both 筋 *Kin*, 線 *Sien*, and 絲 *Sz*, in order to make a proper sub-division of the nerves, as : nerve, nerve-fibre, and nerve-fibril.

We should much prefer 輪 *Len*, disk, for *cell*, to 珠 *Chü*, as being the most appropriate of any character we know of in Chinese.

The 自 *Tsz* in 自和 *Tsz Fö*, sympathetic, is wholly superfluous and makes very unwieldy terms in combination.

No really good term has yet been found for *pancreas*. A literal translation from either English or Latin would be both inaccurate and ridiculous, for it is neither "sweetbread" nor "all-flesh," but a gland; 胰 *I* has been suggested as a good name for it, but *I* is used for the caul, in *animals*, and would be very appropriate and more intelligible for *omentum* than the one now in use—脂囊 *Chi Nang*. We have never seen a native doctor or butcher who could tell the pancreas when they saw it. Butchers claim to know it, but if asked to bring one they bring the caul, or the caul and pancreas together, not knowing the difference. So that, with us at least, when they use 胰 *I* or 膈 *Liao*, which is synonymous, they do not mean pancreas but caul.

In the absence of a better term we have changed 肉 *Yuh* to 核 *Huh*, as it is a gland, and retained 甜 *T'ien*, sweet, as not altogether inappropriate, inasmuch as one of the functions of the pancreatic secretion is to convert starch into glucose or grape-sugar; and the two characters combined will enable the student to remember both the nature and function of this viscus from its name.

There are other characters and changes which we should be glad to see adopted, and if it shall be thought best to make a thorough revision of our medical vocabularies, and they are not suggested by others, we may make other suggestions hereafter.

We believe the basis of forming a nomenclature adopted by Dr. Osgood to be the correct one, and the changes we have made and the suggestions now offered are only to help perfect the nomenclature in harmony with that system. We are confident he would have made many of these changes if he had lived to revise the vocabulary. We need a simple, accurate, concise, and as far as

possible euphonious, nomenclature which will be satisfactory to the Chinese, convenient, and capable of development, as text-books and medical literature multiply, without becoming unwieldy or burdensome in its use.

The object of language is to convey ideas, not to obstruct them. So that not only is it important that Anatomical and Physiological terms should be the simplest possible, but it should also be borne in mind that we have a superstructure to rear, and the terms required in Practice, Surgery, *Materia Medica*, etc., should be formed with the greatest care and forethought. Work of this kind in China has really but just begun, and what we fasten upon them now is going to aid or hinder the spread of Western science amongst them according as we are wise or otherwise in our initiatory work.

It might be added here, that in order to carry out our plan for a new vocabulary, it was found necessary to add a number of new terms.

Our principal aid was the Dictionary, Medical students more or less familiar with Chinese and Western Medicine, and native teachers to help determine the meaning, combination, and use of characters. We make no claim to be above criticism, but have done the best we could under the circumstances, and others must feel free to point out any errors, or make suggestions of improvement of terms; and such work should be thoroughly done before any measures are adopted to prepare a Standard Medical Dictionary.

NOTES ON A CASE OF NEURALGIA.*

By CAWAS LALCACA, M.D., L.M., L.R.C.P.

Chinaman, ANEW, aged 33. Married. Is a house-boy by occupation. He suffers from fever and severe headache for about a month.

Previous History — Says that he had hemiplegia on the right side some five years ago. It came on in two or three days and was cured by Chinese medicine in about three months. A month previous to the present illness, he suffered for about a month from pain, without swelling and weakness, of both the knees. Has had malarial fever now and then. There is no history of any constitutional disease, though admits of having over-indulged in sexual habits. The family history does not reveal anything of importance.

* Read before the Medical Missionary Association of China, 18th February 1890.

History.—The present illness commenced, about a month ago, with chills and fever and somewhat constant headache, which steadily got worse, in spite of his taking Chinese medicines.

When first seen, on the morning of 17th October 1889, his temperature was 102. Quick and feeble pulse. Bowels confined, having had only one motion in the last week. Urine scanty and high-coloured. Dry furred tongue, sallow complexion, emaciated, and tossing about restlessly on his bed on account of the severe pain in the head. The pain is located in the left supra-orbital and temporal region. It is constantly there, sometimes worse. Diffused pressure causes a little relief temporarily, although it is somewhat tender at two spots, one located just above the supra-orbital notch, and the other in the upper part of the temporal region.

He has had very little food all through his illness. Now and then vomits bilious watery stuff, has had but little sleep for the last six nights.

All the other systems of the body are normal. Hypodermic injection of a quarter grain of morphia was given, also an enema of warm water, and a dose of Epsom salts ordered.

Vesp.—Bowels moved twice, feels easier, has slept a little, the pain is less, temp. 100. A dose of bromide of potassium with chloral ordered at bedtime.

18th.—Slept a little at night. Pain in the head still bad. T. 101. The stomach is somewhat irritable. A mixture containing iodide and bromide of potassium with tinct. gelsemii ordered, with a dose of quinine in the morning.

Vesp.—The mixture makes him feel worse. T. 102. A large dose of bromide of potassium ordered at bedtime.

19th.—Slept a little at night. Headache is still bad. T. 100. Castor-oil given and antipyrin given in 20 gr. doses thrice a day.

Vesp.—T. normal. Pulse 90. Stronger. Headache much better. Slept after the first dose of antipyrin. 20 gr. antipyrin to be taken at bedtime.

20th.—Feels better, slept well, headache very little, takes milk and soup, with a little brandy, no fever. Antipyrin continued in 15 gr. doses thrice a day.

21st-24th.—Has had no fever. Bowels somewhat costive. Sleeps fairly well. Headache is much better. Antipyrin reduced to 7 gr. thrice a day.

24th, 27th.—Doing well. Antipyrin 5 gr. twice, as the headache comes on slightly now and then.

27th October.—Goes about and feels well. Ordered Fellows' Syrup and cod-liver oil, which he has hardly ever taken from some excuse or another.

From this time he went back to his work and did not consult me till about the middle of November. Said that for the last few days, the headache was now and then coming on again although not so badly as before. Antipyrin ordered, 10 gr. thrice a day.

This time the antipyrin does not agree with him. Larger doses of 20 to 30 gr. tried four times a day. The relief to the headache was very temporary, not lasting for more than an hour at a time and then only at the expense of causing severe griping in the stomach and cramps in both the extremities. These annoying symptoms, as a rule, came on as soon as he took a dose of antipyrin, whether large or small. 7 gr. of antipyrin was injected subcutaneously, without his knowing it was the same medicine, which caused the painful symptoms almost the same minute. He had to be relieved by subcutaneous injection of morphia with atropine, which only relieved the pain for a few hours. A small blister was applied at the painful part in the temporal region, but did not do him any good. Large doses of bromide of potassium, with and without chloral, quinine about 7 gr. four times a day. Croton chloral hydrate in 10 gr. doses four times, external application of aconitin were all tried one after the other. Internally, quinine relieved him for a little time. The rubbing-in externally of linim. aconit. was also of no avail.

Two hypodermic injections of chloroform (three drops) were given at both the painful spots, which caused a great amount of swelling and inflammation of the subcutaneous tissue, with the corresponding amount of pain, without relieving the headache.

The stomach being in an irritable condition, neither the cod-liver oil nor any ferruginous tonics were given. However, by the Xmas week he was a little better. He was encouraged to go out in the open air, and take as much milk and beef-tea as he can. Though never entirely free from the headache he was getting on fairly well and did not look much pulled-down.

He was taken bad again in the middle of January, this time the pain being on both the temples and the frontal region. Previous to this the pain was either on the left or the right side.

Complaints of pain at the inner side of both the eye-balls, and says that he does not see very well. There is no increased tension of the eye-ball, and ophthalmoscope does not discover any choked or cup-shaped disc.

The stomach is very irritable and vomits up everything. Has eaten very little these last four days.

Antipyrin was again ordered. This time he could bear it without getting any painful symptoms, but the relief was very transient. Small injections of morphia with atropine were absolutely necessary to relieve the pain. The vomiting was still severe, so 40 gr. doses of bromide of potassium were ordered with spt. ammonia and chloroform-water, and mustard plaster on the epigastrium. This stopped the vomiting.

For these last three weeks morphia has been stopped, the bromide of potassium was also discontinued and a pill of—

Ext. Cannabis Indica $\frac{1}{3}$ gr.

Quinine $\frac{1}{2}$ gr.

Ext. Gentian q. s. ordered twice a day.

These seem to have done him some good, and he has been going about his work, though not quite well. Last night I was called again to see him, the headache being worse. A small morphia injection was given. The same this morning, as the ext. cannabis indica does not relieve him, according to what he says. Urine was examined, sp. gr. 1,010, no albumen or sugar.



The China Medical Missionary Journal.

VOL. IV.

MARCH 1890.

No. 1.

The New Year—may it be a prosperous and happy one to us all—witnesses the first number of the fourth volume of our Journal. While, on the one hand, we congratulate ourselves, on the other, we have much cause for regret, for this infant volume, born of the New Year 1890, has lost the wise, guiding hand of the late Managing Editor, Dr. BOONE, to whose able management its predecessor was indebted for the year now past. With health not too strong, and with many duties to perform, Dr. BOONE has deemed it necessary to resign, and thus under existing circumstances the management has devolved upon us. We have, with diffidence, accepted the trust, and in so doing earnestly represent how much we need and ask for assistance in the furthering of that which we have much at heart, the welfare of our Journal, the only exponent, as it is, of our Medical Missionary work in this vast kingdom of the East, and, with doubtless many of us, our only chance of exchanging views. And thus, in the New Year, may many contributors be added to our list, and so build up a Journal worthy of being the representative of our ever-increasing work, and also of pride to those who have the honor of being associated with it.

OFFICIAL NOTICE.

We beg to call attention to the fact that the continuance of the publication of the Journal is dependent upon the decision arrived at in May, when the whole subject of the Journal and its future will be submitted to the Conference.

Referring to the Official Notice published in the December No. of last year, it has since been ascertained that the By-law on Association Dues has *never* been rescinded, so that the annual subscription to the Journal, viz., \$2.00 a year, is in addition to annual dues.

As the continuance of the Journal is dependent upon its being rendered possible, we would, if such continuance be deemed desirable, recall and emphasize the plain business statement of fact made in the Official Notice alluded to.

NOTICES OF BOOKS.

CHINA IMPERIAL MARITIME CUSTOMS MEDICAL REPORTS

For the Half-Year ended 30th September 1887.

The Customs Medical Reports are always welcome. The present number is rather late in making its appearance, but contains much of an interesting nature. At Foochow "five cases of scarlet-fever, with one death, were treated at the American Methodists' girls' school." "In the course of the summer, several cases of beri-beri among Cantonese residents came under observation."—Dr. T. RENNIE. *Tamsui and Kelung*.—Dr. ALEXANDER RENNIE reports:—"In Kelung the mortality has been excessive. In the spring of this year the construction of a railway was commenced. The line runs through a hill, and it is in the excavations for this tunnel and cuttings on the hill-side that men have been chiefly engaged; about 2,400 soldiers were drafted for this work. For the three months ended with August, the mortality from all causes was set down as 493. For the six months ended 30th September, a mortality of 800 is certainly not over the mark. The actual mortality however by no means represents the loss,—many who recovered are so weak as to be useless for further operations. The prevailing disease was malarial fever, and the duration of the attacks varied from 3 to 20 days. A few cases of inoculation also occurred. It is striking to note the severity with which soldiers suffer from climatic conditions in this island. They are mostly drawn from the northern provinces of the empire. Although in point of physique they are far superior to the natives of the island, they are by no means so well fitted to withstand the sickness attendant on the work they are engaged in. The worst cases of malarial fever and malarial cachexia, I have seen, have been in northern men employed in railway work, or from the Kelung coal-mines. It is not the degree of fever that is noteworthy so much as the rapid exhaustion, and, in cases that recover, the marked anæmia and prolonged debility following in its train." Dr. ALEXANDER JAMIESON, Shanghai, says:—"To deny absolutely the existence of a dangerous and even fatal form of remittent fever in Shanghai would no doubt be rash and unjustifiable, in face of the number of deaths, diminishing, however, year by year, certified as attributable to it. But this I can positively say, from my own experience, that whenever a fever lasting more than a week; presenting exacerbations and remissions which may or may not correspond respectively to evening and morning hours; with slight and irregularly recurring rigors and sweats, languor, anorexia, nausea, sleeplessness, headache or lumbar

pain, restlessness ; wherein the temperature varies in an irregular manner through the 24 hours between 101° F. or a little lower, and 103°·5 F. or a little higher, where the cardiac action, at first unchanged, loses in force and increases in frequency as days pass by ; where there is a furred tongue, thirst, yellow diarrhœa or obstinate constipation, where quinine has little effect or none,—whenever such a fever has under my hands proceeded through stages of increasing gravity to a fatal termination, and that I have been able to secure an autopsy, I have invariably found, in greater or less development, the intestinal lesions of enteric fever.” “The great majority of fevers which are classed as remittents are really enteric.”

Dr. JAMESON appends to his report a paper on simple continued fever :—

“By this term I mean to indicate an affection characterized by high bodily temperature and other manifestations of the febrile state, not contagious, having no specific eruption, unaccompanied by structural complications, and usually of brief duration.” “This form of fever declares itself, in the vast majority of instances, in hot weather, and assails, by preference, new arrivals. Its commonest antecedents are imprudent exposure to the sun, exercise in super-heated air, sudden chill with arrest of perspiration, or over-indulgence in stimulating food and alcoholic liquids. Mental fatigue and emotional shock should also be cited as causes ; at all events they certainly exasperate the action of the other causes enumerated.” “In a case of average violence the face is flushed or very pale, the conjunctivæ injected ; there is intolerance of light, intense throbbing headache, often accompanied by severe lumbar pain and cramping pains in the extremities, sleeplessness ; dry pungent skin, with an axillary temperature from 103° to 105° F. ; rapid bounding pulse, palpitation on exertion ; white or brown loaded tongue, usually with red edges, complete loss of appetite, urgent thirst, nausea ; diminished urinary secretion. The bowels may be either costive or relaxed, dyspnœa may or may not be present, vomiting is not constant, but when it occurs, the vomited matters consist at first of undigested food, then of tenacious mucus, and finally contain much bile as the attack is beginning to pass off.

“As a general rule, confinement to a dark room, complete mental and physical rest, ice to the head, saline laxatives and diaphoretics, with iced lemonade in small quantities at a time, suffice to bring the attack to an end within 48 hours ; sweating, diuresis and fetid stools marking its termination. When it proves more obstinate, general treatment with the cautious exhibition of quinine, salicylate of sodium or antipyrine may be required for a longer or shorter period. In the early stage quinine only adds to the distress. Occasionally nervous exhaustion from persistent sleeplessness appears to maintain the fever, which vanishes immediately after sound sleep has been procured by a dose or two of

chloral with digitalis. I have seen but one fatal case, and I must admit that my diagnosis in that instance was not accepted by the patient's ordinary medical attendant." The above observations by Dr. JAMIESON, are interesting as reporting a class of cases which the older medical men in China have long had under observation. They are distinct, on the one hand, from enteric fever, and, on the other, from malarial fevers; one thing is always noted, that, at first, quinine aggravates the symptoms, although, later on it may find use as a tonic.

At present we know that the neurotic theory of fever prevails. Disturbance of heat regulation is the first step in the morbid process. The cause of the disturbance may be an impression, direct or reflex, upon nerve-centres, or it may be a morbid agent produced within the body or introduced from without. Poisonous substances, alkaloids, whether putrefactive or the result of normal or abnormal metabolism, and non-alkaloidal ferments normally present in the economy or arising from perversion of normal processes, are the principle intrinsic pyrogenic agents. Of extrinsic agents, micro-organisms are still considered the most important. WELCH recognizes fever as a complex process, though he would prefer to limit the term to elevation of temperature. There is both increased heat production and increased heat loss. The temperature at any time, depending on the ratio between these processes, fails to indicate the actual energy of either. In the early stages, production predominates; in defervescence, loss prevails, and in crisis may be threefold the normal amount. Augmented oxidation is an essential part of the febrile process, indicating increased heat production, and is not merely the result of elevated temperature. Recognizing in muscles and glands the principle sources of body heat, all thermogenic phenomena may be found, as pointed out by MACALISTER, to depend upon the action of katabolic (thermo-excitatory) and anabolic (thermo-inhibitory) nerves. The symptoms of fever point to disturbances of both sets. With certain restrictions, WELCH asserts that febrile temperatures do not in themselves exert the injurious influences usually attributed to them. Independently of other causes, heat exposure may give rise to a *special* form of thermic fever. Purely nervous fever or neurotic pyrexia may exist in organic disease and in hysteria, or as a reflex neurosis, as in some cases of catheter fever. The doctrine of evolution indicates a protective tendency in a process which characterizes the reaction of all warm-blooded animals, against the invasion of an enemy, and we are justified in believing that fever-producing agents light the fire which consumes them. It is not inconsistent with this view, that the fire may require the controlling hand of the physician, to prevent injury to the patient.

Dr. BEGG, of Hankow, contributes a paper on "Psilosis, or Sprue, or Diarrhœa." In this paper Dr. BEGG says:—"In dealing with cases of simple intractable diarrhœa, I at first found that all the drugs I had been in the habit of

using failed to cure the condition, and felt bound to confess that the results of treatment were most unsatisfactory. It then struck me that the symptom which I had been in the habit of relying on in the treatment of spurious dysentery was constantly present in these cases, namely, a clean tongue. From that time I was in a position to attack my cases with a definite plan of treatment, expecting that I had to deal with but another form of mischief, produced and sustained by the presence of the *ascaris lumbricoides* in the digestive tract, and I therefore directed my attention to attempting, by the exhibition of *santonin*, its removal. In not a single case have I ever seen an *ascaris* in the evacuations as a result of the treatment adopted, but all the distressing symptoms of the disease have yielded to its influence, and I feel confident I have been able to cure a disease I had begun to regard formerly as incurable." After reviewing the history and the symptoms of *Sprue*, as given by Dr. THIN, in his pamphlet, Dr. BEGG says:—"In short, it seems to me that there is no evidence to support the statement that in cases of *sprue* we have to deal with a serious disease of the mucuous membrane of the intestine, which is quite distinct from the chronic diarrhoea of tropical countries. In conclusion, I would shortly state my position as follows:—I do not believe that the disease *sprue* exists. It is defined as a disease of, and originating in, the mucuous membrane of the intestinal tract, and the symptoms seen are charged to its account. I believe we are dealing with an alteration in the products of digestion induced by the agency of an organism; that by its action the contents of the bowel are rendered unfit for absorption, and all clinical phenomena are but the result. The organism, no doubt, produces irritation of the mucuous membrane, by its presence and by the changed character of the motions. The state of the mouth and general condition of the patient are simply the to-be-expected result of such interference with so important a function, and, in detail, are but what is seen every day in patients suffering from other diseases including or causing similar functional derangements. The drug *Santonin* I believe to be inimical to the life of the organism, and as the result of its destruction, nature reasserts her sway." "The dose of *santonin* is the usual one of five grains for an adult, and is given in a teaspoonful of olive-oil, well mixed, and taken the first thing in the morning, or in some cases, where it is found that the patient suffers considerably from the effects of the drug, I prefer to give it at bedtime. I give one dose a day, and continue the treatment for six days."

H. W. B.

THE I.M. CUSTOMS MEDICAL REPORTS,

For the Half-Year ending 30th September 1887.

We are glad to have another issue of these Reports, though it has been somewhat tardy in making its appearance.

One of the first things which a young medical man does, on going to a foreign country such as Chiua, is to try to get hold of some literature bearing on the special diseases of the country. Usually he comes out armed with one or more books on Indian diseases, and while these are doubtless useful, yet for practical purposes the Customs Reports would be more helpful and instructive. A careful perusal of them will give him a ready-made experience, to use a phrase of Dr. JAMIESON, which he would find valuable in the commencement of his career. A DIGEST of these Medical Reports was published some years ago by Surgeon-General GORDON, which I suppose will be easier to obtain than a complete set of the Reports.

In the present issue the most interesting paper is one by Dr. JAMIESON, on simple continued fever as observed in Shanghai. He defines simple continued fever as "an affection characterised by high bodily temperature and other manifestations of the febrile state, non-contagious, having no specific eruption, unaccompanied by structural complications, and usually of brief duration," and states that it arises from "causes so various, as sudden suppression of perspiration, exposure to the sun, excessive fatigue, mental exhaustion or shock, the introduction of noxious matters, or of matters whose products of disintegration are noxious, into the alimentary canal, or the inhalation of foul gases." He suggests that the condition common to all of these causes is found in the contamination of the blood by poisonous substances absorbed from the pulmonary or intestinal surface; in the latter, and commoner case, the substances are Leucomaines and Ptomaines. His medicinal treatment consists of laxatives and diaphoretics, and in more obstinate cases general treatment with the cautious exhibition of quinine, salicylate of sodium, or antipyrin, for a longer or shorter time. The purgative which he gives most frequently is 15 grains of calomel followed by a seidlitz powder. One would like to know what advantage there is in giving such a large dose of calomel. In the case of most ordinary individuals one or two grains of this drug followed by a saline laxative produces results of a sufficiently decided nature. Quinine is said only to add to the distress when given in the early stage. In the south of China a form of simple continued fever is met with, both among foreigners and Chinese, in which quinine has no

effect, but in the ordinary run of such cases, after a few doses of a saline febrifuge mixture, and the bowels attended to, quinine is generally very satisfactory. We hope Dr. JAMIESON will continue these interesting "clinical studies" in subsequent numbers.

There is also a most remarkable paper on Sprue, by Dr. BEGG, of Hankow. This observer does not believe that the disease Sprue exists. He thinks that the diarrhoea commonly designated Sprue, is due to an alteration in the products of digestion, induced by the agency of an organism which by its action renders the contents of the bowel unfit for digestion. Hence, if another name is necessary, he would call it "parasitic or microbic diarrhoea." He asserts that six doses of santonine, each 5 grs. in a teaspoonful of olive-oil, is an "infallible remedy" for the disease. He gives one dose a day, the first thing in the morning, and continues the treatment for six days. We venture to suggest that possibly Dr. BEGG's experience of Sprue has not been very extensive. Anyhow it remains to be seen if his plan of treatment will be found to be an "infallible remedy" by other medical men. We know of one case of Sprue where santonine was given in the initial stage of the disease, yet it has gone on from bad to worse. The santonine, however, was not given in olive-oil.

A. L.

AMERICAN ARMAMENTARIUM CHIRURGICUM,

4to, pp. 846; New York: George Tiemann & Co.

This catalogue forms such an exception to the ordinary ones that it is worthy of special notice. This large volume contains 4,414 illustrations of surgical instruments and appliances. The publishers—leading instrument-makers of the country—have furnished us with a valuable store of information as to the endless variety of instruments used by the surgeon. There are many things that we look for in vain in books, but of which it is useful to have some information. It differs from the ordinary catalogues in having descriptions of the anatomy of various parts, and it contains accounts of the proper modes of using all the instruments. These accounts are copied from standard authorities, and due credit is given for all quotations. The surgeon need not be at a loss for the name or uses of any surgical appliance which he may require; with these beautiful illustrations and the accompanying descriptions he has every information which he could wish for. It will prove indispensable as a reference-book for finding new instruments, surgical apparatus and appliances.

HUMAN URINE IN PHTHISIS PULMONALIS.

A few weeks ago I was called to attend a Chinese gentleman for hæmoptysis. He informed me that he had heard that human urine was good for consumption, and that for two months he had been taking a wine-glassful of his own urine twice daily. He thought that he had put on a good deal of flesh and that his general health was better since he began the treatment. This gentleman had been educated in the U.S. of A.

A. L.

SWATOW MEDICAL MISSION.

By A. LYALL, M.B., C.M.

In organising a medical mission there are several objects to be kept in view. We must first take into consideration the general circumstances of the town in which the medical mission is to be located, and then, to the best of our ability, adopt such methods as will enable us to utilise the resources at our command for the treatment of our patients, and, at the same time, admit of efficient missionary operations being carried on. Neither of these objects should be neglected, and a plan should be chosen which admits of both being reasonably well conducted. It is generally admitted that a hospital of some kind is essential to the success of a medical mission. The question naturally arises how a hospital can best be carried on to suit our special purpose. Some medical missionaries, perhaps, will prefer to have a small hospital, well equipped and manned, in which they can treat a few selected cases of more or less scientific interest. On the other hand, they might have a hospital with much larger accommodation—but, necessarily, less efficiently equipped—so that less care need be exercised in admitting cases, and thus the special influences of a mission hospital be brought to bear upon a larger number of patients. There may be a difference of opinion, but it seems to me, in the present condition of things in Chiua, that it would be preferable, when possible, to choose the latter plan, on account of its affording a better field for evangelistic and Christian work, and, at the same time, admitting of fairly efficient medical work being performed. I have no wish to advocate a low standard of efficiency in mission hospitals. All I maintain is, that we are in China for a special purpose. We

are here, not first as medical men, but as missionaries, and we should adapt our methods accordingly. It would no doubt be more pleasant to us to have a hospital under our charge equipped and manned as efficiently as a home hospital, but we must ever remember that while it is the duty of Christian churches in the home lands to send the Gospel to less favoured nations, it is not specially their duty to maintain in heathen lands expensive charitable and benevolent institutions. Hence, we should be satisfied to aim at giving our patients better accommodation than they could have in their own homes, until the Chinese themselves are willing to support such hospitals, when we may then approach nearer to the home standard.

The question of the relative importance of medical and evangelical work in a mission hospital, I do not care to discuss. But, to my mind, the duty of a medical missionary is perfectly clear. He must be guided by his conscience in conducting the medical treatment of his patients as well as in his efforts for their spiritual good. While he must ever remember that he is a missionary as well as a doctor, yet he has no business to undertake the treatment of any man unless he is prepared to do his best for him, so far as circumstances and the resources at his command will admit. A physician may be an evangelist, pure and simple, if he chooses, using his medical knowledge to help him in his evangelistic work. But, if he lays himself out as a medical missionary, he is not justified in neglecting his medical work. Moreover, it is only by efficient and skilful treatment of disease that any permanent impression is exerted in the district in which the medical mission is placed. Many missionaries are inclined to under-estimate the influence of the native system of medicine. Doubtless this system is rude and primitive and still in the fogs of superstition, yet it is native, and, consequently, has a great hold on such a conservative people as the Chinese. A medical missionary must, therefore, train himself to be a skilful physician and surgeon, if he desires to win the confidence of the people among whom he dwells, and to influence them for good.

Again, I do not think that any hard and fast rule can be made as to the share in the evangelistic work which a medical missionary must himself undertake. His duty in this line will vary very much according to the special circumstances in which he is placed. In some circumstances he may require to limit the number of his patients, and devote a good deal of time and strength to Christian work among them. In other circumstances it may be best to give the greater part of his time to purely medical work, though ever seeking to exercise a Christian influence in every way possible in the institution under his charge. Especially will this be the case when the hospital is connected with an old established or a large mission centre where Christian natives can be obtained as helpers, and where ministerial colleagues, recognising the valuable opportunities

afforded by the hospital as an evangelistic agency, are willing to take a greater or less share in that branch of the work.

My intention in this paper, however, is not to discuss the general question of medical missions, but, in response to a request some months ago from our former President, Dr. KERR, to give a short description of the medical work in Swatow.

Swatow is a small town, the sea-port and commercial centre for a very populous region. It is essentially a commercial town, which has sprung up since the port was opened for foreign trade. There are but few Chinese families living in it, a large proportion of the native population being merchants, boatmen, and ship-coolies whose families live in the country villages. Besides being the sea-port, Swatow is really the best centre that could have been chosen for missionary work among the Tie-chiu speaking people. From it to almost every part of the Department there is easy water-communication by means of sea or river. The country occupied by the Swatow-speaking people is perhaps 200 miles long by 80 miles broad, the population being variously estimated from four to six millions. Patients come to us not only from the whole of this region, but also from the neighbouring parts of the Prefectures of Hwei-chou, Ka-eng chou, and from the southern border of the Hokien province. The very nature of the centre has, to a large extent, helped to make the hospital the success it has been. The English Presbyterian Mission at its beginning was fortunate in having a medical missionary in the person of my predecessor, Dr. GAULD, who had the ability not only to observe the special advantages of the place as a centre, but also to organise his work in a way to avail himself of them. At first, owing to the hostility and turbulence of the people, he began work in a small way. When his patients increased in number, he built a large hospital. Just before leaving he had the pleasure of erecting his third hospital, which was on a much larger scale than either of the others, and it has been the duty of his successor to cope with a yearly increasing number of patients coming from all parts of the region.

Our out-patient department is comparatively small. The bulk of our patients come from a distance, and this being so, if we are to treat them at all, it is necessary to provide accommodation for them. There are really few, if any, suitable places where they could live in Swatow. The inns for emigrants are expensive, and probably not very well conducted. Therefore the number of our in-patients is very large. Many of these, no doubt, could be successfully treated as out-patients, if they could find suitable lodgings in Swatow. But as they cannot, we must give them a place to live while under treatment. The requirements of this place as a centre really necessitates a combination of a hospital and a hostelry. I scarcely need to point out that a splendid field for missionary

work is thus provided. In 1888 the average number of in-patients was 160 (some years it has been considerably larger) and the average length of stay for each patient is about three weeks. In the course of a year we have patients coming from 1,600 to 1,800 different towns and villages. Hence, we have under Christian influence and instruction a daily average of at least 160 people drawn from all parts of the country round about. So far as results are concerned, our experience is much the same as that of other medical missionaries. We have rarely seen any out-patients permanently influenced for good, while from the in-patients there is seldom a year in which there are not more than a hundred applicants for baptism.

Medical.—We have two hospitals, one with accommodation for about 120, the other can hold from 40 to 50 Chinese. To carry on such a large work necessarily requires a pretty large staff of native assistants. Without them the foreign missionary himself, no matter how strong or energetic he may be, could never over-take all the routine work. Generally the native staff consists of from eight to ten persons, one being a woman, the matron. Of the assistants, four are paid, two of whom have been engaged in the hospital for many years. The rest are pupils, bound to stay, at least, three years, getting no wages, and supplying their own food. All of them are professing Christians. It would only be absolute necessity that would induce me to have a heathen as a paid assistant, pupil, or, indeed, in any official position connected with the hospital. The influence of the native assistants on the patients is great. They can do a great deal of good or a great deal of harm. With regard to pupils, though we have a good many, we have not laid ourselves out to get them. We only take in and train a few for our own convenience. I have nothing to say against a medical missionary undertaking the teaching of a class of native students in addition to his other work. But it takes up much valuable time, and as there are so many claims on our time, one has to choose the kinds of work he considers most useful. At present, I believe I can spend my time and strength in doing other work calculated to be of greater assistance in spreading Christianity than by training native doctors. We have made no attempt to use natives as paid medical missionaries, *i.e.*, sending them out as our agents to do medical mission work by themselves. If any of the brethren have done so, we would be glad to learn how it has worked.

Routine Medical Work.—Four days of the week are devoted to the in-patients, and two days—Tuesdays and Fridays—chiefly to out-patients. Of the hospital days, Mondays and Thursdays we give out medicines sufficient to last three or four days, and examine newly-admitted patients. On Wednesdays and Saturdays we operate and examine new arrivals. The programme of a day's work may be stated thus: After worship the native assistants are arranged in three

groups; one group attends to the eye cases, of which there are always a great number, the second dresses operation cases, ulcers, and the third dispenses medicines. Then, on hospital days we see new patients, or old ones whose prescription requires changing, or operate according to the day. On Tuesdays and Fridays after worship we attend to the out-patients first. When these are finished the hospital work begins. In the afternoons about four, the eye cases, or at least such as require it, are again attended to. Such is the general routine work, but of course every day there are extra or special things to be done in addition.

The patients are not asked to pay anything for the medicines. They require to provide their own food. Opium-smokers are charged \$1 on admission. Two or three years ago they were coming in large numbers, one year there were 664, and being very unsatisfactory patients, Dr. COUSLAND was obliged to charge an admission fee.

Evangelistic.—Morning and evening services are conducted with the patients by the missionaries, senior native assistants, and others. On Sunday afternoons we have a special service for the examination of applicants for baptism, conducted by a missionary or by an elder of the church. This service has proved signally useful. The examination is made largely instructive. Besides applicants for baptism, generally there are other patients present who listen attentively to what is going on. This, together with the daily services in which the native assistants take the gospels in regular course, gives the patients an opportunity of obtaining a fairly good knowledge of Christian truth. The hospital just adjoins the mission compound, where the missionaries live and have their various educational institutions. The medical mission therefore has always been recognised as one of the branches of mission work. All of my colleagues arrange when in Swatow to take some part in the evangelistic work, and the ladies of the mission visit regularly the female patients and conduct various classes. More or less help is also obtained from the students and Bible-women under training and other Christians living in or near the compound. With the in-patients we have never any difficulty in getting them to attend the services. Seldom do we find a man trying to avoid them. The out-patients, however, are very different, and those from Swatow and neighbourhood are the most given to shirking worship.

(To be continued.)

HOSPITAL REPORTS.

REPORT OF THE MACKAY MISSION
HOSPITAL, IN TAMSUI, FORMOSA, FOR 1888.A RENNIE, M.B., C.M., *Physician and
Surgeon-in-Charge.*

REV. G. L. MACKAY, D.D.

"The following figures will shew that more than an average year's work has been done, and that the institution has lost none of its popularity." New patients (out-door and indoor) 3,280; Return visits of patients for medicines, etc., 7,685. In the brief and interesting *résumé* of the work carried on throughout the year, Dr. RENNIE makes some very pertinent remarks regarding the fostering of the spirit of independence in the recipients of charity, and the rule that each patient as far as possible should maintain himself in hospital, is good, and if it were possible to inculcate some such system, modified according to circumstances, our home charities would not be abused to the extent they are.

The Rev. Dr. MACKAY appends a highly instructive and interesting account of native therapeutics. We regret we cannot reproduce them here. Six pages of the report are devoted to careful classification of the diseases met with and treated throughout the year; half that number, to short accounts of medical cases, then comes the list of operations, totalling 392; amputations 4, excisions of tumours, 22, "on the eye" 59, and a long list of good work done. The Rev. Dr. MACKAY, in summing up, refers to the exceptionally hard work of the past year. At one time, during the great heat of summer with many wounded Chinese soldiers in the building, and the keeper sick, in the midst of intolerable stench, Dr. RENNIE carefully operated, and cheerfully attended to the sufferers, with all the characteristics of a true physician and surgeon. "Including all the preachers, we have dispensed during the year to 8,673 patients." "By such means prejudices have been removed, and suffering ones benefited." "And just as assuredly will the combined superstitions of China be overthrown, and replaced by Christianity, the comfort of the heaven-seeking soul, the guide of the earth-wandering pilgrim, and the bulwark of the great nations of the earth."

REPORT OF THE MEDICAL MISSIONARY
HOSPITAL AT FATSHAN, SOUTH CHINA,
1888, IN CONNECTION WITH THE
WESLEYAN MISSIONARY
SOCIETY.*Medical and Surgical Staff.*

Fatshan Hospital: Charles Wenyon,
M.D., M.Ch.
Shin Kwan Dispensary: R. J. J. Macdonald,
M.D., M.Ch.
Ku Shin Dispensary: Mr. Anton Andersson.
Hospital House Surgeon: Mr. Ch'an Ashing.
Matron: Mrs. Yan Oi.

The Hospital, now has accommodation for 150 in-patients, and, being the centre of a very populous district, there can be no question as to the pressing need which it supplies.

The total number of attendances of patients during the year at the Hospital, and its two Dispensaries is 7,598. The attendances at the Hospital were 4,692, of these 2,584 have been new patients, inclusive of 204 in-patients, and 87 private patients visited at their own homes.

During the year, 144 operations were performed, with only three deaths, fourteen operations for stone, with success in each case. With regard to the evangelistic work, "Every morning the Gospel has been preached by our native catechists; every evening such of the patients as were able and so disposed, have met together in a bible-class; every Sabbath, there has been united worship in the Hospital Chapel." "A small medical class is under instruction, and is making satisfactory progress."

REPORT OF THE LONDON MISSION,
HANKOW, 1887-88.

Dr. GILLISON writes cheerfully, and hopefully of his plans for the future, looking forward to the time when his already large work, will yet become more extended.

We quote the following, requiring no comment from us, speaking for itself with no uncertain sound. "A military graduate came to us from some 300 miles, suffering from

cataract of both eyes. Upon the one we operated, telling him to return at a given time. One afternoon, some three months afterwards, whilst busy in the dispensary, the message was brought us, Mr. Lo has come down bringing with him forty-nine patients who wish to stay in the hospital." Then the corollary, in all its true acceptation of the word, "We are thankful to say that Mr. Lo gave up his idolatry and was baptized, and we trust we may see some fruit from this seed, in the vicinity of his own home."

The following statistics are then advanced:

Out-patients	...	1887	1888
New cases: men	...	4,345	4,572
" women	...	610	796
" children	...	717	859
		5,672	6,227
Return visits	...	3,664	4,398
Total	...	9,336	10,625
In-patients (included in the above):			
Male	...	629	643
Female	...	50	58
Total	...	679	701

Opium Smokers.

"This class of patients still continues to come to us for treatment, 120 during 1887, and 137 during 1888." In commenting upon those who seek to defend opium smoking on the ground, that it is not necessarily an evil, but only a luxury, and that its effects are not as ruinous as they are often reported to be, Dr. GILLISON sums up, basing his clear practical reasoning upon the experience of upwards of 1,000 cases, in these words:—*"Opium smoking is more than a luxury, it is a vice which enthral its victims with an iron grasp, from which escape is well-nigh hopeless."*

The operations performed during 1887 total

General	...	316	Minor	432
1888	...	396	"	414

Appended to which are notes upon the more interesting cases.

Passing on to the evangelistic phase of the work, "we have left it to the last, but it is the helm which guides the ship." During the two years under review, twenty-eight of the patients were baptized, all with one exception being in-patients. The Doctor thus closes his report:—"Should this fall into the hands of any one who may be thinking of Medical Mission work as a possible future for himself, we can only say 'Come.' It is a glorious work, full of present encouragement and future promise. It is an entrancing work, and a needed one."

TWENTY-FIRST ANNUAL REPORT OF ST. LUKE'S HOSPITAL FOR CHINESE, IN CONNECTION WITH THE AMERICAN EPISCOPAL CHURCH MISSION, SHANGHAI.

For the year ending 31st October 1889.

We have received two reports of St. Luke's Hospital, the one in English, the other in the Chinese characters. We regret having to confine our attention to the former, for the present, which is a clear business-like *résumé* of a good year's work, plainly told, and amply evidenced.

"It is a record, expressed in the simplest terms, of work which must have carried happiness into many Chinese homes, and which, if such a sentiment as gratitude animates the Celestial mind, should do something towards reducing the antipathy to 'foreign devils.'"—*N.-C. Daily News*.

Dr. BOONE tells us that "The work of the Hospital has been carried on without interruption, during the past year, and we trust that a large amount of good has been done."

"The Hospital is open every day in the week for out-patients, while in-patients are also admitted, going to the first, second or third class wards, according to their ability to pay, or their own wishes in the matter. The third-class wards are free.

"Dr. R. A. JAMIESON, as Honorary Surgeon, has continued his unremitting and valuable services to the Hospital. Dr. H. M. PERKINS has performed the duties of Honorary Dental Surgeon, and Dr. DUNCAN REID has conducted the eye clinic, thus giving much relief to a large class of patients."

"We have to thank Drs. PICHON, LALCACA, and SLOAN for the interest which they have shown in the work, and for sending patients to the Hospital. The following table gives a summary of the work done during the year:—

Description.		Intern.	Extern.	Total.
Native	Males	442	11,815	12,257
	Females	55	8,024	8,079
Foreign	Males	12	313	325
	Females	2	127	129
		511	20,279	20,790

"The Vaccination Dispensary connected with the Hospital was conducted as usual, and a large number of infants and children were vaccinated. The officials and gentry have made use of our first-class rooms, and the general wards have been well filled. Only 14 foreigners applied for admission to the wards, although, many sought and obtained relief,

at the out-patient department. 130 Surgical and 593 Minor operations were performed in the hospital. The Medical Pupils attended the hospital regularly, and have received clinical instruction.

"Daily services for the out-patients have been held in the chapel, in addition to the work done in the wards by the clergy, who have regularly visited the patients."

Further on, Dr. DUNCAN REID gives some interesting notes of operation cases, two of which we must find space for.

"Case of Mitral Disease of Heart and General Dropsy."—The almost miraculous effect, which Digitalis sometimes has in cases of this nature, was well shewn in that of a boy of 13, who was admitted on the 8th September. He was seen at home, propped up in a chair, his body and limbs distended with fluid, to more than twice their natural size, his eyes almost starting from his head; lips and face blue; gasping, and evidently about to die. Two basinfuls of clear fluid were removed from the peritoneal cavity, and he was ordered to be taken to the Hospital, where he was given Digitalis with Acetate of Potas. On the 13th he was able to walk home.

"Elephantiasis of scrotum."—In this case—that of a young man of 25—admitted in February, the scrotum had reached the size of a man's head. It was easily removed, the genital organs having been first carefully dissected out. It is interesting to note that on his recent return to the Hospital, for an operation on his leg, which is also affected, the disease shewed no signs of again affecting the scrotum."

Dr. BOONE then gives us an account of some dozen cases; we quote the following:—

"L. T. N. Faecal Fistula." Male, farmer. Small opening over caecum, from which pus and faeces are discharged. Disease began 3 months and 23 days ago. Free incision over site of lesion, parts dissected up, exposing the bowel. Found a ragged, irregular opening two inches above lower end caecum opening transversely into the gut, 1½ inches in length. After removing some adhesions, cleansed the bowel, and put in a double row of "Lembert Sutures," thus inverting the serous surfaces of the bowel; put in a drain-tube and closed wound in skin: aseptic dressings.—*Twenty-sixth day.*—Discharged, cured.

Sz A. L. Fracture of Skull with Impaction of Glass.—"A pane of glass fell from third storey skylight, edgeways, making a scalp wound at mid-frontal bone near parietal junction; wound cleansed, many fragments of glass removed. Next day, under chloroform and with full antiseptic precautions, incised and lifted scalp, found a piece of glass 1 in. wide ½ in. high, driven like a nail into skull. Saw applied to the bone on both sides of the glass; one large and ten small pieces

removed, also some fragments of putty, one large and some small bits of the inner table of skull were extracted; syringed and dressed aseptically; 27th day discharged cured.

ANNUAL REPORT OF THE C.M.S. HANGCHOW MEDICAL MISSION FOR 1888.

Dr. DUNCAN MAIN tells us "that the year under review, we are thankful to say, has been one of blessing and much encouragement; our hands and hearts were fully occupied."

"The following statistics represent to some extent the work of the year. Figures of course are not to be despised, but it is impossible to represent by them all the work done or the amount of good accomplished. Suffering has been alleviated, disease has been cured, lives have been saved, prejudice has been overcome, confidence has been won, friends have been made, gratitude has been shown. The gospel has been preached, souls we believe have been saved, and we trust God's Holy Name has been glorified."

Number of Patients Treated during 1888.

Out-patients (registered only on first visit)				Male	5,838
				Female	2,656
					8,594
In-patients				Male	481
				Female	70
					551
Suicides				Male	62
				Female	48
					110
Dead on arrival					18
Saved					66
Died					26
Patients visited at their homes					115
Patients seen in the country					3,292
Number of visits paid to Foreigners and Natives, at their homes					678
Number of suicides treated at home					31
Number of accouchements treated at home					5
Number of visits paid by Out-patients to the Dispensary					24,410

The list of operations is a grand one of 1,097; this includes extraction of teeth 461.

Opium Smoking.

"During the year, 103 were admitted to be treated as in-patients, and 549 passed through our hands in the Dispensary as out-patients.

<i>Age of Patients.</i>				No.
Under 20 years	...	...	...	3
20 and " 30	"	"	...	35
30 " " 40	"	"	...	33
40 " " 50	"	"	...	27
50 " " 60	"	"	...	5

Reasons for Commencing Habit.

Pleasure	...	...	...	89
Relief of pain, etc.	...	...	...	14

Reasons for Breaking-off Habit.

Want of money	...	...	...	38
" work	...	...	...	22
Inability to work	...	...	...	17
Sickness	...	...	...	13
Repentance	...	...	...	9
Exhorted by others	...	...	...	5

Kind of Opium used.

Native	...	...	...	13
Foreign	...	...	...	34
Native and Foreign mixed	...	...	...	56

Where smoked.

At home	...	...	...	11
At den	...	...	...	43
At home and den	...	...	...	49

When smoked.

Before food	...	...	...	18
After	...	...	...	59
Before and after	...	...	...	26

"In former reports, I have freely given my opinion as to the degrading, demoralising and ruining (financially and physically) effect, the vice has upon its victims; and after another year of daily contact with opium smokers, I have nothing to say in favor of the habit, nor can I report as having met, with any one who advocated it. The Chinese themselves look upon it as a vice, and admit that every man is worse morally, and many are worse physically, for indulging in it. It is, I think, impossible to use the drug to any extent, without positive injury to purse, person, and principle. As the craving increases, the rule is for the principle to diminish, along with the purse and physical strength. I sympathise with my whole heart and soul with every effort for the suppression of opium smoking."

Hospital Notes for 1888, C.M.S., by FLORENCE NIGHTINGALE MAIN, accompanies the report. We ourselves have the honor of knowing this lady's prototype, and if we could, gladly would we give space to this earnest little pamphlet, Mrs. MAIN tells us that—

"The work amongst the women has been carried on much as usual; there have been many opportunities of 'telling out among the heathen that the Lord is King;' and we

feel very grateful for the willing reception the good news has had from them. And after giving accounts of several interesting cases, goes on to say that—

"One of the advantages of the hospital, is that it brings us into contact with rich and poor alike; it gives us an entrance to the houses of the better classes, which many others find difficult to obtain; and it helps us to retain our hold of the old patients, who have given evidence of their interest in the Gospel. By its means we have made a number of friends; and trust that our influence may benefit them in a large measure spiritually."

It has been our good fortune to have visited Hangchow very recently, thus we have the pleasure of being personally acquainted with this admirable institution.

ANNUAL REPORT OF THE AN-TING
HOSPITAL, IN CONNECTION WITH THE
AMERICAN PRESBYTERIAN MISSION,
PEKIN—1887-88.

The first page of this report, gives us an excellent cut of the handsome Dispensary buildings, erected by the Misses STOKES, in which 18,333 cases were treated, during the year, and 600 cases seen in the country. 232 in-patients were received into the hospital, seven deaths occurring; the number of operations were 104. From the interesting "Notes on Cases" we cull the following:—

"One of the patients, whose forearm was amputated, was a pitiable illustration of the ignorance of native doctors. Called to fix the man's arm, which was broken, he bandaged it so tightly, that in a very few days gangrene commenced, thus necessitating the operation. Although obliged to pass the rest of his life in this world with but one arm, the patient did not propose, to go into the next in a like condition; so he had his wife, who accompanied him, carefully wrap up the severed limb in her handkerchief and take it home, to be kept in a red box until he died, and then put into his coffin."

With reference to religious work,—
"Regular preaching services, have been kept up in the two dispensaries. These have been conducted partly by the church-helpers, and partly by volunteers from among our native Christians."

"The hospital church, an account of the formation of which, was given in our last report, continues to grow. It now numbers thirty-two members.

"It is especially, in such a country as China, where prejudices against the foreigner are strong, that the usefulness of the missionary hospital, is very evident. The

Chiuaman goes to the hospital, to seek relief from physical suffering, when nothing else would induce him to come in contact with foreigners. While there he learns that the 'outside barbarian' and his religion are not so bad, as he had been told;—thus the practical sympathy shown to him in his distress wins his confidence and often his heart."

"In fact, those living in a land of religious freedom can but little appreciate the petty and sometimes severe persecutions, which a determined stand against idolatry involves in this country. To become Christ's disciple here often means social ostracism, and in a most literal sense the forsaking of family, friends, and all that a man has. The wonder sometimes is, not that so few, but that any at all, are willing to face all the consequences, that may follow such a step."

FIFTH ANNUAL REPORT OF THE TUNG-CHOW-FU DISPENSARY, 1889.

*In connection with the American
Presbyterian Mission.*

Dr. NEAL tells us that:—"The past year (1889) has been one of continuous work at the Tung-chow-fu Dispensary, and in many respects has been the most satisfactory one, in an experience of five years."

Then, when the Doctor was called away to the famine region, he was enabled to leave students of his own training in charge of the Dispensary, so that it has been open continuously "and the attendance of out-patients is larger in the aggregate by several hundred than ever before." The total attendance during the year was 4,227, in

addition to which 931 visits were received from patients in the famine region, where, during a month, a temporary dispensary was carried on. This makes, for the whole year, a total of 5,158, and hospital patients 58. The Rev. Dr. MILLS visited the Dispensary of a day, and endeavoured to interest the patients in religious matters. An account of hospital work is then given, detailing some interesting cases; then medical teaching is touched upon, the rules of which are practical and thorough. We quite agree with the Doctor, that they may be interesting to those engaged in Medical teaching to China, and so append Rule V.

5.—"The instruction shall consist of a graded course, embracing recitations during the *first year* in *Anatomy, Physiology, Materia Medica*, and *Chemistry*, with laboratory practice in the latter; during the *second year*, *Descriptive Anatomy, Physiology*, and *Chemistry*, shall be completed and the study of *Practice* be begun; the *third year*, *Practice* shall be continued and *Surgery* and *Surgical Anatomy* with *Therapeutics* be added, while the *fourth year* shall be devoted to finishing up the studies already begun, and to studying *Diseases of Eye, Diseases of Skin* and *Obstetrics*, together with whatever may be desirable in the judgment of each individual teacher, a prominent place being given during the last year and a-half to clinical teaching, and the practical management of the sick.

A new feature in the Report, is a meteorological register of Tung-chow-fu, prepared by one of Dr. NEAL'S students. We note a range of temperature of 89° F., (from 17° F. below freezing, to 72° F. above or 104° F.)" "Tung-chow-fu is blessed with a rarely good climate."

P. M.

SOCIETY REPORTS.

The Shanghai Medical Missionary Association held its regular monthly meeting at St. Luke's Hospital, on the afternoon of the 14th May, the President, Dr. BOONE, in the chair. Having been called to order, the minutes of the former meeting were read and approved.

The business before the meeting being disposed of, Dr. MATHEWS was called upon to read his paper on "Removal of Tumour from the Buttock of an Infant," the chief points of interest being its large size (12 oz.) in so young a child, viz.,

3 years of age, and its recurrence in 4 months substantiating the diagnosis of Fibro-Sarcoma. Dr. BOONE having remarked upon an analagous case, which had come within his cognizance, the meeting adjourned.

11th June.

The meeting having been called to order by the President, Dr. BOONE, the minutes of the previous meeting were read and confirmed. Present:—Drs. BOONE, JAMIESON, READ, LALCACA, GALE and a visitor. Upon motion the date for future meetings was changed from the second to the third Tuesday in each month. There being no further business before the meeting, Dr. LALCACA was invited to read his paper on the diagnosis of a case as between Typhoid Fever, Typhoid Remittent, Infantile Remittent, and Tabes Mesenterica, the case in point being present. It was that of a child whose general appearance was remarkably plump and healthy, abdomen considerably enlarged and tympanitic, with the physical signs of a small tumour on the left side. Dr. LALCACA first considered the diagnosis between Typho-malarial and Tabes. In the first-mentioned, there is no eruption, and in the latter, none; but diarrhoea was present, liver and spleen enlarged and mesenteric glands congested.

In establishing a diagnosis, the first consideration, naturally, was family history. This was, on the whole, good. There had been 12 children, one of whom had died of "dropsy," another, also dead, had been much troubled with flatus. Previous to this illness the patient had been always well, showing no signs of scrofulous taint; the abdomen, however, had always been tumid, thus favoring tabes.

The duration of fever present was not in favor of tabes, neither was the type of fever purely typhoid, the temperature being nearly that of malaria. The diarrhoea gave no clue, as in typhoid, no distinctive ensuing constipation, suspicions of typhoid, abdominal symptoms, pain, tenderness in iliac and gurgling.

The absence of eruption was not diagnostic, tongue was slightly furred, but not a truly typhoid tongue, skin at first dry, afterwards sweating, face always pale; the enlargement of abdomen might have been from an enlarged organ or retained fæces, and the fluid in the abdomen, which was very slight, might have been due either to typho-remittent or tabes, the lump in the left lumbar pointed to tabes, no other glands being enlarged.

In the discussion which ensued upon the reading of the paper, Dr READ thought that the disease may be considered typhoid, the tongue not being uniform in this disease, tympanites and dulness being common both in fever and in health, the child too being apparently in ill-health; further, the temperature in typhoid fever was not always typical, and the character of the stools made

the case doubtful. Dr. LALCACA remarked upon the tympanitic condition being maintained, notwithstanding stools being produced. Dr. BOONE then gave his experience in Bellevue Hospital, New York, where there were many children of all nationalities, and of the lower orders of society. Many cases of tabes were treated, and the P.M.'s showed a great wasting. If tubercular deposit is extensive in the mesentery, it will also be found in the lungs. Cases do recover from tabes, but they are rare. In this case recovery has been very rapid. Typho-malarial or typho-remittent fever was not known until Dr. WOODWARD saw it during the civil war in America, 1864, etc. It then appeared as a fever among the young soldiers, like typhoid. He reported several thousand cases. It was then agreed to call it typho-malaria. It is now doubted if such a fever exists. No post-mortem lesions are found in the intestines. It is probably pernicious or a protracted form of remittent fever, the present case, in all probability, being typhoid. The spots mean nothing; the dulness on the right side might be due to liver, or left to spleen; the liver might extend across; enema brought away irregular hard lumps; the dulness might thus be due to impaction of fæces; the relapse with diarrhœa was very significant of typhoid. Dr. JAMIESON had not found any doughy feel, which, however, he considered might be impaired by the tympanitic condition. Dr. BOONE commented on the mixed blood found in the stools, pointing out that if ulceration had been high up, the blood would have been mixed, if low, streaked.

Dr. LALCACA believed in a mixture of typhoid and remittent fever. He was not acquainted with P.M. lesions in India.

Dr. BOONE had read that when ulcers were not found, typhoid fever was a misnomer, should be enteric fever.

Dr. LALCACA suggested another point, viz., that quinine, doing good, as it does, to the typhoid, did harm in this case, thus disturbing the diagnosis. Might it not then be a case of tabes recovering under pot. iodidi ointment.

Dr. BOONE then exhibited two cases for diagnosis.

1st.—Case of man, tumour of abdomen. 2nd.—Paralysis, man, abolishment of reflexes, exaggerated motion of legs when lying upon bed, wholly unable to stand. The meeting, with a vote of thanks to Dr. LALCACA, then adjourned.

15th October.

The meeting having been opened with prayer, the previous minutes were read and confirmed.

Applications for admission to General Society, Drs. GOLDSBURG and McBRIDE. Referred to Committee on Admissions. The necessary business being disposed of, Dr. BOONE introduced two cases. The first was that of a man, who, seven weeks previously, had been burnt with kerosene oil. The burns were cicatrix-

ing and very dirty; loss of sensation in fingers and thumb of left hand, dorsum normal anteriorly, situation of burns, outer aspect of right arm, forearm and knuckle of little finger, 9 in. \times 2 in., 6 in. \times 2 in., 4 in. \times 1 in. long, not deep on left arm, posterior aspect just above elbow $5\frac{1}{2}$ in. long, motion is free, and he can pick up anything, loss of grip one half, says he was in perfect health before the accident. Dr. BOONE considered that the irritation of burn and contraction of scar has irritated the nerve-trunks, the condition of anæsthesia being due to this. Nothing at that time could be done. After healing is accomplished, the question will arise whether the trouble will cure itself, or if it continues, what treatment would be best.

The second case was that of a man æt. 50. Malarial history many years since. Masked ascites and œdema of lower limbs on admission. He stated that before the ascites came on he had a lump on ribs on left side; distention was then too great to confirm this; tapped and 22lbs of ascitic fluid withdrawn, leaving some 7 or 8 lbs. of fluid; the tumour was then found.

Delegates for the Conference in Berlin were then voted on, as in Magazine. There being no further business the meeting adjourned.

19th November.

The President, Dr. BOONE in the chair. Present:—Drs. BOONE, REIN and MATHEWS. The minutes of the former meeting were read and approved. There being no business before the Local Society, it was adjourned, and the General Society opened, whereupon Mr. JOHN FRYER was unanimously elected an honorary member of the Medical Missionary Association of China, and Drs. GOLDBURG and MCBRIDE were respectively elected to membership. The applications of Drs. MARY BROWN, CHAS F. JOHNSON and ALICE MARSTON being referred to the Committee on Admissions, the business before the General Society being disposed of, it was upon motion, adjourned and the Local Society re-opened, whereupon the President called upon Dr. MATHEWS to read his paper, entitled “Notes upon Infantile Diseases, St. Mary’s Orphanage, Shanghai,” the opening remarks of which dealt with that class of Chinese from which the Orphanage inmates were drawn, and instanced some examples of diatheses produced by defective food. The author then somewhat fully discussed Coryza and treatment, evidencing the suffering caused to young children by this apparently simple and, as a rule, neglected complaint. In an epidemic of measles which took place, attention is drawn to a case *sine* eruption, and in answer to a question put by Dr. GREGORY in his *Eruptive Fevers*,—Can measles exist without the eruption?—the author remarks “that taking 20 presumed cases of epidemic measles in one room, and 19 are sufficiently developed, to leave no doubt whatever in your own mind of your diagnosis, whereas the twentieth has prevailing symptoms *sine* eruption, it does

not, he thinks, under the circumstances, require any lengthened process of exclusion to conscientiously diagnose that exceptional case, No. 20, as measles. Comment is then made, upon the apparent analogy existing between this epidemic of measles and "Rötheln" of the Germans, especial stress being laid upon the uniform absence of bronchial catarrh. Dentition, weaning, and food are respectively touched upon, leading on to diarrhœa, which takes up the greater part of the paper. The advantages of oft-repeated minim doses of lactic acid are substantiated. Dr. Wood's heroic treatment in thermic diarrhœa, had been tried in one case, with success. In the discussion which followed the reading of the paper, Drs. BOONE and REID both strongly advocated repeated small doses of ipecacuanha in a form of diarrhœa not uncommon in Shanghai, the more marked characteristics of which, were clay-colored stools and raw condition of the living membrane of the mouth. Dr. REID further remarked that he had been given to understand, that salicylate of soda, had given good results, and promised to give the Society the result of some experiments, he was then engaged upon. The meeting, with a vote of thanks to Dr. MATHEWS, then adjourned.

17th December.

Present: Drs. BOONE, REID and MATHEWS; the President, Dr. BOONE, in the chair. Minutes of previous meeting read and confirmed. The Local Meeting, then adjourned, and the General Society opened, whereupon Drs. MARY BROWN, CHAS. F. JOHNSON, and ALICE MARSTON were duly elected to the membership of the Association. The business before the General Society being disposed of, the Local Society was re-opened, and Dr. BOONE was called upon for his report on a case of "Excision of Head of Humerus, consequent upon an old irreducible luxation." It was that of a Chinaman, a wheel-barrow man, who, 40 days previously to admission, had luxated the head of the humerus downwards and a little forwards; with ample, skilled assistance at hand, Dr. BOONE had twice attempted reduction under chloroform, but entirely without success, and having upon those occasions exhausted every means of reduction, other than the pulley, to which exception was made, it was the unanimous opinion of the three surgeons present "that the bone must have got through a small rent in the capsule, very probably at the posterior portion," and the alternative, under the circumstances, appeared to be excision of the head of the bone, which operation was successfully performed by Dr. BOONE, the man making an excellent recovery, "He has free motion of shoulder in every direction, can put his hand on his head," being entered 20 days after the operation.

In the discussion which ensued upon the reading of the report, the first remarks, touched upon the justifiableness of the operation, in which all present concurred, and emphasized their opinion, that not only did the ends justify the

means in this case, but having signally failed to make reduction, the alternative, excision, presented itself as affording the patient a very fair prospect of a useful arm, and consequent means of earning his livelihood, an opinion somewhat substantiated by the man having now resumed his calling.

The subject of the pulley was then brought forward. Dr. BOONE stated that he was inclined to concur with the now growing tendency not only to discontinue, but to discountenance the indiscriminate use of the pulley, that he recognized the danger incurred, by the unmeasured and unappreciated traction, and he considered that properly-regulated manipulative action, with contrivances adapted to circumstances, were not only better but safer.

Dr. REID, while in a measure concurring with Dr. BOONE's remarks, could not, and would not, discount the value of the pulley. He himself had personally known cases, yielding to the pulley when all other means had failed, and he considered that with intelligent handling, the pulley is superior to a force, rendered by two or more independent factors; further, it induced an even regular traction, as opposed the irregular independent agencies alluded to; and as regarding it being an unmeasured and unrealized force, he would advance as a corrective, an intelligent handling as well as an intelligent watching and manipulation of the parts acted upon.

Dr. BOONE considered, that the manipulative agency he had alluded to and endorsed, was as capable of intelligent handling, seeing that the agency itself was an intelligent one, as the intelligent working of a mechanism, whose degree of tension it was impossible to estimate, other than by results, which may be as well disastrous, as otherwise. It was to be recognized that the real source of danger in reducing old luxations is, that the blood-vessels and nerves may have contracted such strong adhesions to neighbouring parts, that the use of a force, which is mechanical, and thus not easily estimated, while, enabling us to reduce the luxation, may cause the most serious injuries to the vessels and nerves themselves. We cannot say beforehand in any given case, whether there are or are not adhesions which would render the use of great force, in reducing an old luxation, a dangerous thing. The serious accident of rupture of great vessels, had occurred in the practice of some of the greatest of surgeons, therefore it is not possible to foresee in which case, the appliance of mechanical force is justifiable.

The Secretary having been requested to make arrangements for its next meeting, the Society, with a vote of thanks to Dr. BOONE for his instructive report, then adjourned.

21st January, 1890.

Present: Drs. BOONE, GALE and MATHEWS and a visitor. The President Dr. BOONE, in the chair. The previous minutes were read and approved. There being no business before the meeting, Dr. GALE was invited to read her paper,

that of a case of Dropsy and Scanty Urine without albumen. The patient, a Chinese girl, æt. 11, was admitted to the Margaret Williamson Hospital with bloated condition of face, œdema of limbs, and ascites. 1½ oz. of urine drawn off, after three days' retention, sp. gr. 1,028 and neutral; tested for albumen and sugar with no results; a few ounces of urine passed during the subsequent three days, then coma set in for three hours; the next day a considerable quantity of urine passed. Improvement for eight days, abdomen softer, cough better, urine increased, no albumen in urine. Before the 9th day relapse, and upon the 15th day dyspnœa was so great that paracentesis abdominis was performed, and inf. digitalis administered 2 drachms every 4 hours. Her condition varied from day to day, until the 22nd, when she quietly died during the night. Repeated tests of the urine never revealed any albumen. Dr. BOONE referred to a somewhat similar case, complicated with malarial fever. The Secretary being requested to make arrangements for the next meeting, the Society, with a vote of thanks to Dr. GALE, then adjourned.

PERCY MATHEWS, M.D.,

Secretary.

THE SECOND HYDERABAD CHLOROFORM COMMISSION.

This Commission has excited a great deal of interest in the minds of the Medical Profession, on account of the very great importance of the subject. The report, which appears at page 149 of the *Lancet*, January 18th, 1890, is a very full one and replete with interest. It should be read by every member of the Medical Profession. Our space will only allow for a brief account of the practical conclusions reached by the members of the Commission.

1.—The recumbent position on the back and absolute freedom of respiration are essential.

2.—If the position on back cannot be retained, utmost attention to respiration is needed to prevent asphyxia or over-dose.

3.—Tight clothing, either on neck, chest or abdomen, is to be strictly avoided; no assistants should be allowed to exert pressure on the thorax or abdomen, even though patient be struggling violently.

4.—An apparatus is not essential, and ought not to be used. A convenient form of inhaler is an open cone or cap with a little absorbent cotton inside at apex.

5.—At commencement of inhalation care should be taken, by not holding the cap too close to the mouth and nose, to avoid exciting, struggling or holding the breath. If these do occur, great care is needed to avoid an over-dose, during the deep inspirations which follow. When quiet breathing is ensured, as the patient begins to go over, there is no reason why the inhaler should not be applied close to the face; and *all that is then necessary is to watch the cornea and to see that the respiration is not interfered with.*

6.—In children, crying ensures free admission of chloroform into the lungs; but as struggling and holding the breath can hardly be avoided, and one or two whiffs of chloroform may be sufficient to produce complete insensibility, they should always be allowed to inhale a little fresh air during the first deep inspirations which follow. In struggling persons, especially in children, it is essential to remove the inhaler after the first or second deep inspiration, as enough chloroform may have been inhaled to produce deep anæsthesia, and this may only appear, or may deepen, after the chloroform is stopped. Struggling is best avoided in adults, by making them blow out hard after each inspiration, during the inhalation.

7.—The patient is, as a rule, anæsthetized and ready for the operation to be commenced, when unconscious winking is no longer produced by touching the surface of the eye with the tip of the finger. The anæsthetic should never under any circumstances be pushed till the respiration stops; but when once the cornea is insensitive, the patient should be kept gently under by occasional inhalations, and not be allowed to come out and renew the stage of struggling and resistance.

8.—As a rule, no operation should be commenced, until the patient is fully under the influence of the anæsthetic, so as to avoid all chance of death from surgical shock or fright.

9.—The administrator should be guided as to the effect, *entirely by the respiration. His only object, while producing anæsthesia, is to see that the respiration is not interfered with.*

10.—If possible, the patient's chest and abdomen should be exposed during chloroform inhalation, so that the respiratory movements can be seen by the administrator. If anything interfere with the respiration in any way, however slightly, even if this occurs at the very commencement of the administration, if breath is held, or if there is stertor, the inhalation should be stopped until the breathing is natural again.

11.—If the breathing becomes embarrassed, the lower jaw should be pulled, or pushed from behind the angles, forward, so that the lower teeth protrude in front of the upper. This raises the epiglottis and frees the larynx. At the same time it is well to assist the respiration artificially until the embarrassment passes off.

12.—If by any accident the respiration stops, artificial respiration should be commenced at once, while an assistant lowers the head and draws forward the tongue with catch forceps, by Howard's method, assisted by compression and relaxation of the thoracic walls. Artificial respiration should be continued until there is no doubt whatever that natural respiration is completely re-established.

13.—A small hypodermic of morphia may be given before chloroform inhalation, as it helps to keep the patient in a state of anæsthesia in prolonged operations. There is nothing to show that atropine does any good in connection with the administration of chloroform, and it may do a very great deal of harm.

14.—Alcohol may be given with advantage before operations under chloroform, provided it does not cause excitement, and merely has the effect of giving a patient confidence and steadying the circulation.

35.—The Commission has no doubt whatever that, if the above rules be followed, chloroform may be given in *any* case requiring an operation, with perfect ease and *absolute safety*, so as to do good without the risk of evil.

EDWARD LAWRIE, (*President*).

T. LANDER BRUNTON,

G. BOMFORD,

RUSTOMJI D. HAKIM,

EDWARD LAWRIE, *Surgeon-major*.

Hyderabad, December 18th, 1889.

[*The italics are ours.*]

It was the opinion of SYME that chloroform might be with perfect safety administered, provided the administrator watched the respiration with sufficient care. Sir JOSEPH LISTER, *Holme's System of Surgery*, Vol. iii, page 605, says:—"It follows that the attention of the administrator ought to be concentrated on the breathing, instead of being, as it too often is, diverted by the pulse, the pupil, or other matters still less relevant." Dr. C. BINZ, University of Bonn, in his *Elements of Therapeutics*, fifth edition, page 31, says:—"The primary cause of death is stoppage of the respiration, for the heart continues to beat (at any rate in animals), although irregularly and weakly, for some time afterwards." In fact, some of the conclusions of the Commission are only confirmatory of what has already been asserted over and over again. Their chief assertion is that deaths from chloroform are preventable; by proper care in its administration they may with certainty be avoided. Their statements are very positive, and while worthy of the utmost consideration, must be thoroughly tried and sifted by the Profession before they can be fully accepted. About ether they say:—"If more perfect anæsthesia is required, it can be procured by excluding the air more rigidly, but then there is exactly the same danger as in giving chloroform."

H. W. B.

CORRESPONDENCE.

To the Editor of the

China Medical Missionary Journal.

MY DEAR SIR,

THE topic of the Regulating of Vice is one of present interest from the effort made at our late Ratepayers' meeting "to educate the public" by drastic resolutions for the extirpation of two forms of vice locally prevalent.

Now it would be grossly uncharitable to suppose, that the great body of those who voted no, did so because they felt no concern for the sad state of things portrayed by the earnest speakers on the affirmative side. But that was not the point at issue. Sympathy that does not lead to *right action* is either apt to be harmful, or cheap. To know then what is both right, and wise to be done in this case for our community, is a more serious matter than public meetings are usually fit to consider, and to act upon. Careful study of principles, and of the facts and circumstances under our mixed governments, as well as the latest deductions of medical science, are all necessary, to judge rightly in so grave a matter of public concern.

The clergy, physicians, and men in the position of our worthy Councillors, may well consider and debate such subjects, with the hope of doing some practical good. Public appeals, and efforts to reach individual consciences, lie on another plane, and are always open to zealous workers. For example, the White Cross Society is doing a noble work. An ounce of prevention is almost always worth the full pound of cure.

But to briefly indicate the principles underlying this question. History, and Human Nature, both proclaim, that what we may call the Puritan effort, at several epochs, to dam up the tide, is always swept away by a fuller flood of laxity, or positive viciousness. So that, as a practical matter, we may accept the principle that *overstrain* is a mistake. But beyond this I claim, that the Mosaic tutelage of a people rude, and being weaned from heathen associations, was set aside by GOD. Since then Christians and Christendom, and hence all that we are here responsible for, are under the law of liberty.

The sanctions of all that is pure, lovely, and of good report, are greatly increased. The means to do good to our fellow-men, and the example in so doing, given us by our compassionate Master and Saviour Jesus Christ, should stir us all to do what in us lies to ameliorate the woes, and the vicious lives, of weaker ones in our midst. But for

the wilfully wicked we can only pray, and by patient well-doing convince the gainsayers. Fraud and violence, we can apply the force of law to counteract; but wilful sin with consent, by those of full age must be tolerated, as tares in the wheat are, until the end comes.

Its great assize day will mete out to all, just judgment, and those solemn words shall be heard: "He that is unjust let him be unjust still: and he which is filthy let him be filthy still."

If GOD allows *free will*, and our consequent rebellion and sin; shall men endeavour to make men just and pure by *law*?

The regulation of public wrong-doing, is all that lies in the province of legislation for the commonweal; and our Council must regard many facts not always patent to the general public.

That "High License" and "Inspection" are better in the long run for the so-called "Temperance" cause than "Prohibition" is the belief of many earnest, well-informed friends of that reform. That the regulation of disease, and the disallowance of street solicitation, is all that can be wisely done for public morals, is also the view of many who have studied the effects of sensual vice, on all classes of mixed communities, such as ours is. To say that Shanghai, is pre-eminently sinful is to shut one's eyes to facts elsewhere. To compare a commercial port, to places less exposed, is not at all fair in view of things generally well known in history as well as locally. Native Hankow or Wuhu are not free from brothels and opium-dens, where foreigners have no control, and probably no indirect responsibility even; while Wuchang, which is more like Suchow, is comparatively free.

Our Mission, in its leases, does not allow brothels or opium shops or dens, and is content to take less rental because of these restrictions. When all concerned reach such a stage of desire for the public welfare, then to a great extent our streets, would be cleared of the evils we deplore. But can we hope for such action in the near future? Can we ever reach it, save by the education of individuals to a keen sense of their duties to GOD, themselves, and their neighbours?

I am, My Dear Sir,

Faithfully yours,

WM. J. BOONE, Bp.

ST. JOHN'S COLLEGE,
Lent 1890.

NOTES AND ITEMS.

CHINA MEDICAL MISSIONARY ASSOCIATION.

FIRST GENERAL MEETING.

To be held at Shanghai.

At the request of many Members of the Medical Association, it has been decided to hold the medical meeting after that of the General Conference, which is to begin on May 7th, 1890, and will last from seven to ten days.

Programme.

Introductory:—

1. Calculus in the Bladder : Its Prevalence in China :—Dr. KERR.

The following papers will be read :—

1. Chinese Materia Medica : Its value to Medical Missionaries :—Drs. J. C. THOMSON and DOUTHWAITE.

2. Influence of Medical Missionaries in elevating the Moral Tone of the Medical Profession :—Dr. KERR.

3. Training of Medical Students and their prospects of success :—Drs. NEAL and KERR.

4. Preaching to Dispensary Patients :—Drs. PARK and WOODHULL.

5. Itinerant Medical Work :—Drs. MACKLIN, PARK and MCFARLANE.

6. Medical Nomenclature :—Drs. HUNTER, WHITNEY, KERR and DOUTHWAITE and Mr. J. FRYER.

7. Necessity of giving more prominence to the Evangelistic side of Medical Work :—Dr. BEEBE.

8. Advantage of two physicians working together in each large centre :—Dr. LYALL.

9. Advantages of Co-operation in Teaching, and Uniformity in Nature and Length of Course :—Dr. WHITNEY.

10. History of Medical Missions in China :—Dr. J. C. THOMSON.

11. Hip-Joint Disease ; Its Best Treatment, in Chinese Patients :—Drs. LYALL and WHITNEY.

12. A collective investigation into the subjects of Fevers in China, with reference to the so-called Typho-Malarial Fevers :—Dr. COLTMAN.

13. Native Practice and Practitioners :—Dr. J. C. THOMSON.

The papers are limited to twenty-five minutes in length, ten minutes will be allowed each speaker for discussion, and the reader of a paper will have ten minutes to close the debate, a copy of every paper

which is read at the meeting to be left in the hands of the Secretary of the Association.

H. W. BOONE, M.D.,

*Pres. Med. Miss. Association
of China.*

THE CHINESE SCIENTIFIC AND INDUSTRIAL
MAGAZINE. Vol. V, No. 1.

This interesting number comes to hand just as we are going to press, we are therefore compelled to defer examination of it until our next issue.

Among many articles of interest, we note Sanitary Science, Western Materia Medica, and the Sphygmograph, which will prove of interest to medical men.

NOTICE FROM "THE CHINESE RECORDER."

The Committee of Arrangements for the General Missionary Conference, May 7th, have appointed the undersigned, as a Sub-Committee, to complete these arrangements, and especially to endeavor to provide, as far as possible hospitality, during the session of the Conference for the Missionaries who may attend. To carry out this object, it is necessary that they should know as early as possible (1) who intend to be present, and (2) what accommodation is required.

They have therefore, to request intending visitors, to send information on these two points as soon as they can, addressed to any of the undersigned as may be most convenient,

A. WILLIAMSON.

G. F. FITCH.

J. W. STEVENSON.

February.

REGULATIONS AND PROGRAMME OF THE
TENTH INTERNATIONAL CONGRESS.

The general rules and regulations of this Congress have been sent out by the General Secretary, Dr. LASSAR, of Berlin. These relate to the organization of the Congress, and resemble the regulations that have always been issued regarding the mee-

tings. I. The Congress is to open on Monday, August 4, 1890, at Berlin, and to close on Sunday, August 10th. II. The Congress is to consist of regular, licensed (*approbirten*) physicians, who have enrolled themselves as members and obtained members' cards. Other learned men interested in the work of the Congress can become associate members. The cost of membership will be twenty marks (about \$4). III. The objects of the Congress are exclusively scientific. IV. The work of the Congress will be done in eighteen sections. VII. The general sessions will be devoted to (a) the measures regarding the general regulation of the Congress, and (b) addresses and communications of general interest. VIII. Notices of papers to be read and abstracts of them must be sent to the Organization Committee before July 1890. IX. Written copies of the articles to be read must be sent to the Secretary of the Section before the conclusion of the session. XI. The official languages will be German, French, and English. XII. Communications must be limited to twenty minutes, and discussions to ten minutes. XIII. The sessions will be regulated by generally received parliamentary rules. XIV. Students of medicine and others interested in the work of the sessions can be admitted by securing invitations. XV. Communications or questions regarding the work of the special sections should be addressed to the President of the Section. Other communications should be addressed to the General Secretary, Dr. LASSAR, Berlin. N. W., Karlstrasse 19.

LEPROSY.

A live question, even China awake to it, and better yet H.E. CHANG CHIH-TUNG and others, so rumor goes, have invited a specialist from Japan, where leprosy is said to be curable, Mr. ARAI, Principal of the Leprosy Hospital at Komagome, to come to South China, where leprosy is most prevalent, and direct an anti-leprosy campaign.

The self-denying labors of the Moravians among lepers, these fifty years in S. Africa and Jerusalem and elsewhere, cannot be too highly commended, and the Church and Presbyterian Missions play a like part in India; but the name of the most remarkable candidate for honors in this direction, now appears in all the public prints. Father DAMIEN, the R.C. priest at the leper colony of Molokai S. Ids., died April 10th, 1889, of leprosy, and resulted in causing the "chief sensation of the week," in London, where a photographer coined money in the sale of the photograph of the "Belgian martyr."

An influential Committee, with the Prince of Wales at its head, was formed to raise a Memorial to DAMIEN, in the shape of a leper hospital in London; but lepers are very uncommon there, though one was discovered in the London Meat Market and sent off to a hospital. And the need of lepers for the maintenance of a leper hospital might even attract them thither, so the Doctors objected. But the other suggestion of a Commission of Inquiry into the whole subject of leprosy in India is most commendable, and the Simla Leper Bill, whatever may be the connection, where the magistrates may arrest leper beggars, and put them into retreats where segregation of the sexes will be enforced, and religious freedom secured. Would that in China, where lepers roam at will, or live at home, and in leper villages, where no segregation of the sexes is found, a move in a similar direction might be made. The stories about DAMIEN have been highly colored; so, from a medical standpoint at least, some recent statements of Rev. H. B. GAGE, of Cal., a visitor to the Islands, are not unimportant. He first reminds us that DAMIEN is a *Romish* priest. Much money is expended upon the lepers by the Government and others. Their needs are few and their death is the priests' opportunity for the Church's benefit. Not one in ten is a R. C. before he goes there. Four-fifths of them are Protestants.

The Romanists are favored in the distribution of the Government supplies by the priests, and the Protestants made to suffer.

"There is no reason for this priest becoming a leper, except his own dirty habits; he lives, sleeps and eats with the lepers. He is a leper, the physician believes, from his own neglect of common sanitary precautions. As to his great self-sacrifice, while he might live in every comfort there, as he is not a nurse, and there is no demand for him to do anything for the lepers so far as bodily care and nursing are concerned, as there is a superintendent, and his helpers beside the Government physician and his assistants, he has little to leave, and every motive urged by Romanism, to make himself a martyr, and die a saint."

M. RADIGUET, formerly Consul in China, so the papers tell us, has addressed a letter to the President of the Academy of Medicine in Paris, in which he unfolds a scheme of a lay Society of Medical Missionaries to the East,—the motive, political influence. A help to medical science probably, but a hindrance to the progress of Christianity.

The Hongkong Colonial Surgeon airs his annual opinion on the "perfectly harmless," habit of opium-smoking in a much more airy manner than his "heathen Chinee" would; though the latter would tell you that with abundance of good food, the antidote of opium, and plenty of sleep in the gaol, deprived also of its accompanying vices, he expected to gain flesh. But some unprejudiced persons, with no constituency to please, would be glad not only to examine his cases in gaol, but watch later developments, mental and physical.

THE REDUCTION OF HERNIA DURING COUGHING.

It is an undoubted fact that coughing will produce or bring down a hernia; it is therefore somewhat surprising to hear that coughing may be useful in the reduction of herniæ. M. VANDENABEELE, however, has frequently found that herniæ which had resisted attempts at reduction by taxis alone, yielded when the patient was directed to cough during the manual efforts to compress the sac. M. VANDENABEELE'S observations included both inguinal and femoral herniæ, and were not confined to either sex. He believes that during the act of coughing the hernial ring dilates somewhat, and that if well-directed taxis is employed just at the right moment, most cases will yield.—*Lancet*.

We note a revised and enlarged edition of Dr. T. CHRISTLIEB'S Paper on Medical Missions ("Ärztliche Missionen") referred to in our September 1888 number, has been published in a comprehensive pamphlet of 108 pages.

Speaking at a meeting with regard to the education of women, Mr. BRUDINELL CARTER said he was reminded of a little anecdote of an American. When asked about the female doctors in America, he said, "Yes, Sir, we have female doctors, and we have female lawyers, and we have female preachers, but what we are most in need of are some more female women."

A lady discussing "Women's Rights," said, "I think it is such a pity when women try to turn themselves into men, for they can never turn themselves into gentlemen."

AN EXPENSIVE FAMILY.—This is the patients' bill of fare at the London Hospital for one day:—201 lbs. of mutton, 29 chops, 17 steaks, 172 pints of beef tea, 282 lbs. of potatoes, 119 portions of greens, 351 puddings, 1,368 pints of milk,

and 767 eggs. This will give some idea of the magnitude of the work carried on at the great East-end hospital. In addition to the patients, there are (says the *City Press*) some 300 servants and nurses. The weekly washing bill includes 4,000 sheets, 3,000 blue-checked upper sheets, 400 counter-panes, and 400 blankets. Twenty-three women and a laundryman are employed daily in the laundry. The medical stores show some curious figures for the last year, including 116 tons of ice, five tons of linseed meal, and six miles of plaister.

"What is the difference between the Allopaths and Homeopaths," asked Mrs. Cumeo of her husband. "Oh," he replied, "the Allopaths think the Homeopaths are not ortho-does."—*N. Y. Med. Record*.

LIKE CURES LIKE.—Bobby had made himself sick by surreptitiously eating too many jam-tarts. "Now, Bobby," coaxed his mother, "if you will take this medicine like a little man you can have almost anything you like." "Can I have some more jam-tarts, ma?"

HE FOUND A GOOD NAME.—Young Wife: "John, dear, have you decided what name to give our dear, precious, sweet little baby?" Young Husband: "Yes; I have found a very appropriate one." Young Wife: "What is it?" Young Husband (who has paced the floor with "precious" o' nights): "Insomnia."—*Titbits*.

ARRIVALS.

At Shanghai, November 1st, 1889, Dr. ALICE MARSTON, S.P.G. Mission.

At Shanghai, November 10th, 1889, Dr. and Mrs. J. S. GRANT for Am. Bap. Union Ningpo; for Am. Pres. Mission (North), Drs. C. F. JOHNSON and wife, W. R. FAIRIES, Misses MARY BROWN and E. F. BOUGHTON; for same Mission, December 18th, 1889, Miss M. DECKSON, M.D.

At Swatow, November 16th, 1889, Mrs. Dr. SCOTT, to join American Baptist Mission.

BIRTHS.

At Nankin, November 10th, 1889, the wife of Dr. MACKLIN, Foreign Christian Mission, of a son.

At Canton, December 13th, 1889, the wife of Dr. H. M. McCANDLISS, P. Board of For. Missions, of a son.

At Changchun, Amoy, December 29th, 1889, the wife of Dr. FAHMY, London Mission, of a son.

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China Medical Missionary Journal.

VOL. IV.

JUNE 1890.

No. 2.

A CASE OF OBSCURE DISEASE OF THE BRAIN.

By ALEXANDER JAMIESON, M.A., M.D., M.R.C.P.,

Consulting Surgeon to the Customs.

The following are the original notes of the symptoms and course of a case in which the specific diagnosis may fairly be considered as open to discussion. They contain no comments except such as are implied in the diagnosis arrived at, the prognosis announced, and the final result which proved the correctness of the latter and went far to vindicate the accuracy of the former. It will at all events be evident from a perusal of them that a slipshod diagnosis of nervous prostration did not cover the condition, whatever it may have been, which culminated in sudden death.

Mrs. A., aged 33, four years married. Seen 31st August 1885. Resident in China (Canton and Tientsin) since shortly after marriage. Father is an old sailor, living at 61, gouty or rheumatic. Mother died of consumption at 47, having been pregnant 11 times. She had three miscarriages—1st, 9th and 10th pregnancies. Two children were born with hernia, one of these died in infancy. Another of the eight children born at term was found dead in bed. There was no explanation of his death, except that he was teething at the time.

So far as patient knows, there is no nervous disease in her family. There have been at least three cases of cancer on her mother's side in last generation. Her husband has never had syphilis.

There is an obscure history of violent and uncontrollable nodding movements of the head recurring every evening, which came on immediately after her mother's death, when patient was 20 or thereabouts. This affection lasted for two months. She was treated with assafœtida. There was no recurrence of any nervous trouble up to the date of marriage, and marriage had no effect in reproducing any symptoms.

November 1881.—Marriage.

October 1882.—First child born. The pregnancy had been troublesome, and at some period of it she had been placed in the genu-pectoral position [retroflexion of gravid uterus?]. She was "hysterical" towards its close, and all through it had been subject to "fidgets" of a very worrying character. Delivery was easy, and recovery rapid.

February 1883.—This child died of “diarrhœa and convulsions.”

November 1883.—Second child born. Towards close of pregnancy “fidgetty” movements of the legs were noticed, but these were not sufficient to interfere with locomotion. Squint and diplopia were observed about the same period or a little later, the right eye refusing to rotate outwards beyond the principal antero-posterior meridian of orbit [which condition persists]. This second child was suckled for six months by patient.

May 1885.—Third child born. Towards the close of this pregnancy she noticed that when sitting up she could not throw her head back without producing intense nausea and vertigo, and that when lying down, the same sensations were produced whenever she rested on the back of her head. At the same time profuse salivation occurred [and has continued up to the present. When this saliva is received on a cloth, it leaves a yellowish brown, sometimes green, stain. There are some small ulcers about gums].

This third confinement was easy, and patient suckled for three weeks. She remained as well as before for the first week, but soon shewed symptoms of nervous depression. The feeling of nausea on resting back of head on pillow increased, and five or six weeks later the left arm and left leg became feeble gradually and simultaneously, while spasmodic contractions of the left arm and both legs accompanied by uncontrollable yawning, with vertigo and headache, occurred on waking from sleep. [This condition persists].

She never suffered from sickness of pregnancy, but in last pregnancy she was tormented by heartburn.

Neither of her living children shews any nervous tendency.

All through last winter (1884-85) and up to the present, she has suffered much from aching across the lumbar region, in both groins and in both hips, but more intensely in the left hip. At level of waist there has been, and is, aching on both sides, but not all round. This aching or oppression is marked at apex of sternum and passes occasionally under left breast. On both sides of the occipital region and along the middle line of the head to the roots of the hair on the forehead there is a constant indefinite but very distressing feeling of “giddiness and nausea.” But there is no tenderness to percussion anywhere on skull or along spine. The voice has lately become weak, and in speaking, especially when fatigued, certain sounds are slurred as if control over the tongue were momentarily lost. Deglutition is difficult, apparently from paresis of the hyo-glossi. For some months there has been a sensation of burning across the back on the level of the shoulders and down each arm equally to the elbow. This sometimes radiates into the left breast, when the gland becomes swollen and tense, but there is no secretion from it.

Patient complains bitterly of inability to cry. Under emotion a little moisture comes into her eyes, but no tears are secreted. She cannot cough, but she can sneeze and blow her nose. She has never had the sensation of globus. She is much troubled with uncontrollable yawning. All along, she has slept and eaten well, and digested well, being generally a little constipated.

Her intellect is unaffected, and memory is keen. She has frequently recurring fits of depression. Any proposed exertion, or the prospect of seeing new faces, makes her extremely nervous and agitated.

She has recently been treated with strychnia, valerian (no effect) and bromide of potassium (which seemed hurtful). Blisters to temples and behind ears made matters worse.

Patient sits huddled up, the left hand and forearm on lap in hemiplegic position, and the head bowed forward and inclined to the right shoulder, face looking obliquely to left. There is a livid blush on both cheeks, much intensified

by trials with æsthesiometer. The left foot is pointed straight. There is no contracture. Patient can stand for a moment on either leg, and kick out forcibly with the other. There is an evident difference between the nutrition of the extremities on the two sides, to the disadvantage of the left. The right eye is turned upwards and inwards, and cannot be rotated outwards beyond the principal meridian of the orbit. One day lately the left eye was conjugately deviated, when she was able to look only in an oblique direction. There is diplopia. The sight of each eye at average reading distance is normal. The field of vision is normal. Appreciation of colours unaltered. Pupils equal and sensitive. Hearing is normal on left side, diminished on right.

The tongue is projected very slightly to the right. The entire of the right half is the seat of fibrillar twitching. Patient says her sense of taste is as keen as ever, but in fact she is quite unable to distinguish the taste of salt placed on either border of the tongue.

Dynamometer.—Right hand 47 lbs.

Left hand 25 „

There is a considerable difference in the readiness as well as in the force of the grip of the two hands.

Knee phenomenon greatly exaggerated on the left side; normal on right.

<i>Æsthesiometer.</i> — Points distinguished at	{	30 mm.	Right forearm.
		30 „	Left do.
		58 „	Right leg.
		60 „	Left do.
		30 „	Right side of face.
		30 „	Left do.

8 mm. all round mouth.

No ophthalmoscopic examination made, on account of its difficulty, of the distress it would cause, and its uselessness, as without it there seem sufficient grounds for a diagnosis. An ophthalmoscopic examination was attempted in Tientsin several weeks ago, but no report was made.

Heart and great vessels healthy. Left lung healthy. Some consolidation at right apex.

Uterine system normal.

Urine contains neither sugar nor albumen. Bowels are regular, appetite fair, but there is much flatulence.

Electrical examination, 8th September 1885:—

Regions examined:—Face, flexor and extensor surfaces of left forearm and leg.

Reaction to induced current everywhere normal.

Battery Current:—

	15 cells		10 cells
Face	—	ASZ > AOz	—
...			
...			
	30 cells		25 cells
	—		—
Flexors and extensors	}	ASZ = AOZ = 0	KSZ > KOz
of arm and of leg			

2nd September.—Head distress very intense. 3 grs. potassium iodide every four hours.

3rd.—Pain rather less; sleepless last night. More distress. $\frac{1}{2}$ gr. mercury perchloride added to each dose.

4th.—Appears to have caught cold. Slight running from ears.

5th.—Has been sick several times during night, and has suffered much from wind. Complains of month being sore. This latter symptom at once relieved by chlorate of potash lozenges. Ordered sinapism to epigastrium, ice to suck, ammonia to nostrils. Medicine stopped. Pains in arms and loins, perhaps somewhat relieved by friction with camphorated spirit. Enema.

Ate a good dinner; and slept fairly with two doses of ncpenthe.

6th.—Greatly improved, but depressed. Distressed by hicough whenever she moves.

The following general directions were given as to treatment:—

To keep up mild irritation of skin at epigastrium.

To give potassinn iodide in one-grain doses every third or fourth hour, increasing the strength or frequency of the doses, as may be practicable.

To secure sleep if necessary by nepenthe.

To secure daily action of bowels by enema if required.

Since beginning the potash there is very marked improvement in the condition of the left arm. The cutaneous circulation is normal, the hemiplegic attitude is abandoned, and the amount of voluntary motion possible is decidedly increased. No other improvement, however; perhaps rather the reverse.

7th.—There is to-day very remarkable improvement in motor condition of left arm. Comparatively little difference between the two arms. The head is also nearly straight as regards the middle line. Still bowed on chest. Pain or distress especially marked on right side posteriorly, along the course of the great occipital nerve.

8th.—Feeling of distress nearly disappeared. Cheerful. Motor improvement continues.

A letter from patient's former medical attendant, dated 12th September 1885, states that "last winter I treated Mrs. A. for syphilis. She had a course of potash and mercury.....As the treatment did not benefit her in any way, I came to the conclusion that my suspicions were unfounded."

Diagnosis.—Minute nodule, possibly if not probably of syphilitic character, occupying the lower part of the right half of the pons on its ventricular aspect.

Prognosis.—Noting possibility of sudden death, the prospect of some degree of improvement is reasonable, but absolute cure cannot be hoped for.

On the 10th September 1885 patient was placed under the care of Dr. DALY of Ningpo, to whom the above notes were sent. Dr. DALY, finding nepenthe powerless to induce sleep, gave hypodermies of $\frac{1}{2}$ gr. morphia for a few nights. The general condition remained unaltered, except that periods of remission in the mental symptoms were observed, "good days" when she was cheerful and ate well, enjoying conversation and interesting herself about her household. On these days she was nearly free from headache. She could sleep without a narcotic if anybody sat up with her; otherwise she dreaded the night, and this rendered her sleepless. Intense depression followed the administration of any opiate. Attempts to increase the dose of potassium iodide upset her digestion and had to be abandoned.

A fortnight later Dr. DALY reported that there was less nausea and vertigo and less depression. Pain in lumbar region, across shoulders and down arms, of which she had bitterly complained, was less; deglutition was easier, and sleep had become natural. There was better control of the left leg.

After another fortnight, there was a good deal of pus in the saliva which was secreted profusely. Speech worse. Hysterical.

In the middle of October symptoms were all aggravated. Suicidal suggestions. There was then a sort of crisis of agonising headache, during which it was thought that she must die. This lasted for a few hours, after which she suddenly improved and the symptoms resumed the visage which they presented when she left Shanghai six weeks before. Meanwhile treatment by the iodides had been abandoned, as the smallest dose of either potassium or sodium iodide induced iodism.

She returned to Shanghai towards the end of October and entered the General Hospital, where her condition was, generally, considered to be "nothing but nerves," the diagnosis was "extreme nervous exhaustion," the prognosis "tardy recovery," and the treatment quinine and iron with, later on, an enema, once daily, of 30 grains of iodide of potassium. An ophthalmoscopic examination was made, or attempted, and was reported to have given no indication of brain lesion.

The patient went back to Ningpo without any alteration in her symptoms; and was then subjected to courses of homœopathy and mesmerism. Naturally, nothing came of either, but the case was thus removed from professional observation.

It was known, however, that things were gradually going from bad to worse. In March 1886 the patient was brought back to Shanghai with a view to taking passage for England. She had then, in addition to her previous symptoms, frequent paroxysms of "choking," and mentally she had much deteriorated. She left Shanghai on the 27th March. On the voyage to Singapore dysphagia rapidly increased, so that before reaching that port it was necessary to feed her through an œsophageal tube, and to use nutritive enemata. At Singapore she died suddenly without convulsion on the 16th April. Unfortunately there was no postmortem.

NATIVE MIDWIFERY IN CANTON.

By MARY W. NILES, M.D.

During a seven years' residence in Canton, I have gained an insight into the customs and practices of the Cantonese at childbirth—experiences not confined to any one class, but acquired in the houses of the learned and wealthy, as well as in sampans and hovels. Superstition reigns supreme. The woman is placed in a sitting posture over a tub, and constantly urged from the first to bear down. In the case of a primipara, she may thus be deprived of rest and food for several days. Often exhaustion and uterine inertia arise from no other cause. The midwife is constantly shouting that the child is just ready to be born. She spends her time stretching the vulvar orifice. This may be advantageous, when her statements are true, but when maintained for hours by relays of midwives, it causes, to say the least, excessive swelling. If there is any delay, the patient is kept in an excited state of mind by neighbors calling, and advising

this and that, by constant invocations to *Kun Yam* to save, by burning incense, and drinking tea sent by the idols. A sword and fish net are laid upon the bed, to drive away the evil spirits. There are also many other idolatrous practices.

The fee to the common classes is \$1.00 for a girl and \$2.00 for a boy; to the poorest class 50 cents for a girl and \$1.00 for a boy.

The midwife has some nice tricks of her own to increase her fee.

She works upon the overwrought mind of the patient, by causing her to believe there is some difficulty in the birth, that *she* can only overcome, and unless she has more money, will not stay. The more terror she can inspire, the more gain she expects. I must, however, say, that all midwives are not so unscrupulous. I am acquainted with at least four who, with all their faults, have gained great favor in my eyes, by always sending for *me* when they get into difficulty. It therefore does not behoove, me to speak ill of those who sound my praises to their patients, and enjoin a strict observance of my orders—to my face, at least. To proceed: immediately after the placenta is delivered, the patient is placed upon the bed, and compelled to sit erect. If she can bear it, this is very favorable to the expulsion of clots, etc.; if she cannot, someone must assist her. Again, if she becomes faint, it is all the more important she should be held upright. A few months ago I witnessed the efforts made to revive a woman, in a condition of syncope, after childbirth. I had been called to the case, as one of difficult labor. But when I arrived, the child and placenta were already delivered. The woman was in the usual position. Perceiving that she was not in a condition to endure very much, I requested her to lie down.

When I myself have assisted at labors, my instructions are generally carried out—at least while I am present.

There seems to be a superstition that if there has been foreign interference, some dire results may follow disobedience to orders. Once when I had but left a few moments, a messenger ran after me beseeching me to return, as the patient had fainted. I hastened back and beheld a scene. The very small room occupied by the patient was filled with people. The one window and the two doors were shut. The room was filled with smoke from fire-crackers, and the burning of a varnished umbrella. A lighted furnace was also in the room. Besides the noise made by the crackers, all were screaming at the top of their voices, calling to the woman's spirit to return. She was supported by the husband and midwife—one behind, the other before. They had their arms tightly around her, excluding almost every breath of air. A third assisted in holding her head up by keeping a tight grip upon her hair. Finding my voice could not be heard in this tumult, I struck out right and left, and soon made the attendants aware of my firm intention to make them let go their hold, even if it had to be done by force. As soon as she was in a horizontal position she revived.

But before I was aware of it, my efforts were seconded by holding over her face a large Chinese iron cooking vessel, heated for the purpose. Of course this was instantly removed. Immediately after a patient has been placed upon the bed, the custom is to give a large bolus, containing some very acrid substances, mixed with the juice of fresh ginger, followed by a bowl of rice, and salted duck-eggs. The pill and ginger is continued to the second and third day, and afterwards "ginger vinegar" is given with the rice throughout the whole of the puerperal month, a large jar of this being always prepared before the birth of the child.

Much importance is attached to the "ginger vinegar," and it is the gravest question as to whether the patient will be allowed to take it. If at the time permission is not given, a day must be set apart when it can be taken. Friends come to me a number of times during the month, to know if the "ginger vinegar" may now be given. Some drink a cup of child's urine every day for three days. Having witnessed these pernicious practices, I was surprised, while reading a Chinese book on midwifery, to see how many of them were condemned, and what sensible advice it contained, and given by people, too, who are ignorant of the very mechanism of parturition. I understand the pamphlet in question to be considered an authority. I know not why the educated forego its advice, to follow the superstitious practices of ignorant old women. The book is called 達生編, and is probably the treatise on midwifery translated by Dr. LOCHART. It was fully translated by Dr. KERR, thirty years ago. "The Practice of Obstetrics among the Chinese," written by ROBERT P. HARRIS, M.D., of Philadelphia, and published in the *American Journal of Obstetrics and Diseases of Women and Children*, July 1881, drew its information and made extensive quotations from Dr. KERR's translation. The book evinces the greatest ignorance of the facts of gestation, the mechanism of labor, and the causes of difficulty in the delivery of the foetus and secundines; yet its mission "to restrain the activity of the midwife, and to educate the people, that she is not in any manner to assist in the delivery of the foetus," is most laudable.

I will make some extracts, which would be really helpful if native midwives would follow their advice:—

"There are three important principles to be borne in mind: 1st.—Lie down; 2nd.—Endure the pain; 3rd.—Be slow about the delivery. If these rules were obeyed, at least three-fourths of the difficulties I have met would have been avoided. The first pains are in the abdomen. The woman should have her mind made up to this as necessary, and not to be feared. If the pains do not increase in severity, she need not inform any one of them, but lie still and be at peace. The foundation of all difficulty lies in sitting over the tub 臨盆 when the pains are but slight."

"When the pains are beginning, the woman should eat and sleep as usual."

"The rapidity of the pains will show the course of the labor. It is most important not to consider the tub and the straw very early, and hence bear down and put pressure upon the abdomen. The body should be kept straight, neither in lying or standing should it deviate to one side."

"The woman should take matters into her own hands, and not allow herself to be governed by others, such as midwives or meddling neighbors. This matter is of the greatest importance to herself. She must nourish, and not waste, her strength."

"It is the best plan to go to bed and lie there with eyes closed. If wearied with lying, rise and walk about with the support of friends, and then return to the bed. The woman should lie upon her back. After prolonged efforts at expulsion, the strength of the fœtus is exhausted, and when the proper time for birth arrives there is no strength for delivery." (Write "mother" instead of "fœtus" and the remark is correct.) "In a case in which the arm or foot presents, direct the woman to lie down. Gently push up the arm or foot. Have her remain quiet for one night, and delivery will be accomplished normally." The author gives a case of shoulder presentation, where he replaced the arm, and the child was born normally the next day. We know that spontaneous evolution, or spontaneous version, might take place. Last year, Dr. KERR replaced the arm when spontaneous version took place and the vertex became the presenting part. Certainly the recumbent position, and quietness, would be most favorable to spontaneous version, and would tend to delay impaction and exhaustion.

"The doubter says, 'Shall we not have a midwife?' Yes, but remember the midwife is *your* servant, and you not *hers*. Midwives are stupid, not acquainted with the doctrines."

"Late, or early, they call upon the patient to exert her strength. They rub the back, and push down upon the abdomen, and call out, 'The head is here.' They pass the hand into the vagina and do injury. All this as though they, and they only, were responsible for the whole matter. Her duty is simply to pick up the baby."

"After the birth it is not necessary to take any medicine. The pill of 鼠腎兔腦丸 (rats' kidneys and rabbits' brains) injures the spirits and destroys the blood when the patient is in the weakest condition and least able to bear it. The 回生丹 is very unwise to take, as it impoverishes the blood and gives puerperal fever."

"The diet should be good, but not fat; chicken, or duck, broth, from which the fat has been removed. No one should be allowed to visit the room. All should be very quiet. Do not pray to the idols in presence of the patient. Let only one midwife be present, and let her sit at one side, not allowing her to

interfere with the course of events. If cold, have a fire in the room. If hot, have a pail of cold water to absorb the hot air."

These extracts indicate common-sense in the management of labor, and would, no doubt, have greater influence if it were not for the superstitions which are so universally prevalent.

RUBELLA SINENSIS.

(*Synonym*—"WIND MEASLES")

By DUNCAN J. REID, M.B., C.M. (Aber.)

During the last month or two, we have had in Shaughai an infectious eruptive fever, accompanied by naso-pharyngeal catarrh, which somewhat resembles European R \ddot{o} theln, and which, as it differs from that disease in several respects, I propose to call Rubella,—a name sometimes, but not usually, applied to German Measles.

It is generally preceded for a day or two by a hard irritating cough, although this may be absent.

The onset is generally accompanied by slight malaise and vertigo, perhaps sneezing and suffusion of the conjunctivæ, sometimes headache; almost immediately thereafter an eruption, consisting of red or rose-coloured, slightly raised but flattened papules, which vanish on stretching the skin, appears on the chin, forehead and neck. The fauces are slightly congested, perhaps scarcely at all, and there may be either on the soft palate, on the pillars of the fauces, or on the tonsils, or on all three, a few small herpetic vesicles. The back of the pharynx is, however, the part which presents the most characteristic and most constant symptom. It is congested, and the mucous membrane is thickened and covered with large, red, smooth elevations or granulations. In only one case has this condition been absent, and in it the membrane was congested and thickened. The temperature may be normal, but is usually 99° to 100° F. It may reach 102° F., very rarely 102.5. The patient complains of the eruption as being hot and tingling or itching, and he is inclined to scratch it,—generally, he only rubs it.

On the *second* day, or on the evening of the first day, the eruption has probably extended over the body and limbs, and may there present the same appearance of red, slightly raised and isolated, flattened papules, at times somewhat

resembling those of typhoid fever, never shotty and disappearing on stretching the skin, and on pressure. Or, the papules may have run together, so as to assume somewhat the appearance of measles, but on running the finger over these patches, they give rise to no sensation of roughness, but only of a raised condition or irregularity of the skin. At other times, especially on the wrists and forearms, the papules are mere points, and lie close together, and then they resemble the eruption of scarlatina so closely as to be almost identical. The temperature, state of the throat, and of the eyes, are on the second day very much what they were on the first day. The tongue is either normal, or slightly furred and moist, with perhaps a few enlarged papillæ at the tip and edges. The cough is still hard and croupy, but is usually less irritating than it was on the first day.

On the *third* day the eruption has completely disappeared, or may be just visible on the arms. The temperature is normal. The suffusion of the eyes is gone, and the patient probably feels perfectly well, as, in fact, he may have done during the whole course of the illness. The fauces have now lost their congested appearance, if they ever presented it, but the back of the pharynx is still granular or irregular, and this condition of the pharynx may last for several days longer, accompanied by a hard, croupy cough, and possibly a sensation of dryness.

In only one of the cases I saw was the eruption visible on the fourth day. In none of the cases was desquamation of the skin observed, though probably a fine desquamation takes place. The period of incubation, so far as I can make out, is from eight to nine days.

Measles is no protection from the disease, as several of the patients whom I saw had that disease last year.

In none of the cases, with the exception of one, have I seen any complications, and in this one case there was slight aphonia. As to sequelæ, from the state of the pharynx, I should imagine that post-pharyngeal catarrh was likely to continue, and to be troublesome in weakly children, and, as a matter of fact, several of the children have, since suffering from an attack of Rubella, been troubled with cough and a catarrhal condition of the post-pharyngeal region.

Diagnosis :—

In Scarlet-Fever.—The onset is marked by rigors or convulsions and rapid rise of temperature. Inflammation of fauces and tonsils well marked, strawberry tongue, high fever. Eruption does not fade usually till fourth or fifth day and not completely till ninth or tenth,—followed by large desquamation.

In Small-Pox.—The eruption does not appear till the third day, preceded by high fever, lumbar pain. Papules soon become shotty, and do not, even from the commencement, disappear on stretching the skin.

In Measles.—The invasion is better marked and accompanied by more severe symptoms. Coryza, lachrymation and catarrhal symptoms much more prominent. Eruption appears on the fourth day, generally forms crescentic patches, rough. Temperature higher, and all the symptoms more severe. Complications and sequelæ frequent.

Rötheln, or *German Measles*, is, as I have already said, the disease which it most closely resembles, and, unfortunately, the descriptions of the symptoms of Rötheln, as given by authorities, differ so materially from one another, that one has a difficulty in knowing what the symptoms of this disease really are. In none of the authorities that I have consulted do the symptoms of Rötheln quite agree with those of *Rubella Sinensis* :—

F. ROBERTS, says :—"Sore throat is almost always complained of, which "differs from that of scarlatina in being much less severe." "The eruption "lasts longer than that of either measles or scarlatina, its duration being never "less than four or five days, and it may continue for eight or ten."

WM. SQUIRE (in QUAIN'S *Dic. of Med.*) says :—"There is redness of "the fauces and uvula, less mottled than in measles, not so intense as in scarlet- "fever," and he defines it as being "a specific eruptive fever, the rash appearing "during the first day of the illness, * * * and subsiding with the "fever on the third day."

FAGGE says :—"Rötheln "has a rash very like that of measles, but re- "sembles scarlet-fever in having a very short prodromal stage, and in being "attended with a marked sore throat."

EUSTACE SMITH says :—"On inspection, the fauces are found to be the "seat of diffused redness, and the tonsils may be inflamed and swollen," and he says, "secondary sore throat is a characteristic symptom of Rötheln. It occurs "between the third and seventh day, and is accompanied by great pain and much "swelling," and, further, "the duration of the eruptive stage is three or four "days."

BRISTOWE, says :—"The rash usually attains its height on the second day, and "in the course of the next two, three or four days, rapidly disappears." And, further, "There is frequently sore throat, and sometimes red puncta, or more or "less diffused redness, on the soft palate and fauces," and, "there is often "a little cough."

COPLAND (in *Dic. of Med.*) describes Rubeola, or Rötheln, as "fever "attended by coryza, redness and watering of the eyes, redness and soreness of the "throat, pains in the head, back and limbs, attended, on the third or fourth day,

"by the sudden and general eruption of a red efflorescence, which terminates about the tenth day in desquamation, the disease presenting the characters of measles and scarlet-fever conjoined." And he says, "Inflammatory redness of the fauces, tonsils and pendulous velum of the palate is never absent unless in the slightest cases."

THOMAS (in *Ziemssen's Cyclopædia*) gives a description of Rubeola, or Rötheln, which answers more closely to the disease under consideration than that of any other authority I have consulted. In fact, the greater the number of articles one reads on this disease (Rötheln) the more is one convinced that under this name are included two or more distinct diseases. He says:—"The duration of the spots was often scarcely two, but sometimes four, days." "Desquamation was entirely absent in most cases. In a few cases there were traces of it referable rather to the dryness of the skin with consequent exfoliation than to the exanthem." Referring to the mucous membranes of the air passages, he says, they "are almost always in the condition of catarrh, less intense than with measles, yet so that coughing and sneezing are rarely absent. * * * A somewhat congested condition of the mucous membrane of the palate is never absent." "He says, further:—"The pharyngeal mucous membrane is usually somewhat injected." Further, "as a rule, the exanthem is the first, or at least among the first, symptoms of disease."

* * * "The spread of the exanthem over the body is * * * rapid; it takes place according to its intensity in from one to two days." As to temperature, he says:—"The majority of cases have no fever during the whole course of the disease." * * * "In the minority of cases, fever, at times considerable, may exist, usually only about 1.5° Fahr. The elevation of temperature is either only an initial one, disappearing by the second day of the disease, or it may endure on the second and even on the third." Speaking of sequelæ, he says, *inter alia*, "METTENHEIMER observed a naso-pharyngeal catarrh."

By all these authorities, with the exception of THOMAS, their description of the state of the fauces represents a condition more severe than anything I have seen in any of my cases. The duration of the disease, as given by them all, with the exception of THOMAS, is longer, SQUIRE coming next when he describes it as "*subsiding on the third day.*" None of them, with the exception of THOMAS, refer to the state of the mucous membrane of the pharynx, and he only describes it as "somewhat injected," and mentions an authority who had naso-pharyngeal catarrh as a sequela. As to whether, then, Rubella Sinensis is a disease by itself, or is one of the already described forms of Rötheln, I refrain from deciding.

As to Treatment.

Keep bed or room. If fever high, some diaphoretic, as acetate of ammonia, may be given, but usually no medicine is required. A sedative may be combined if cough troublesome.

If catarrhal state of pharyngeal regions persists, an astringent spray is useful.

DEMONIACAL POSSESSION—SO CALLED.

By Dr. ROBERT COLTMAN, Jr.

About five years ago, I attended a conference in Chefoo, at the house of a missionary resident, and the above topic came in for the major part of the discussion. Being but just arrived in the country, I maintained a discreet silence, but great was my surprise to hear men of good standing, arguing for the existence of demoniacal possession, and claiming that it occurred here in the East, because, Satan being so vigorously attacked in Western countries, had given up this form of persecution there, and was bestowing all his attention and energy in this portion of the globe. If I remember rightly, I was the only member of the medical profession present, and after numerous wonderful cases had been recited by my brethren of the cloth, I was asked my professional opinion. I had a stronger opinion than I was willing to give at that time and place, so I merely said that the cases were very interesting and apparently authentic, but that, not having witnessed their peculiar symptoms, I could not pass a final opinion, but that some of them might have been mania, hysteria, etc.

I went home from the meeting with the feeling, that the Chinese were not the only people who were superstitious, and that I should like very much to see some such cases as those described. For several years this privilege was denied me, but one day a man, a stupid farmer, came to the dispensary and said his young wife was possessed by a devil, and wanted some medicine. I told him I must see the case and appointed the next day at 2 p.m. He came promptly at the hour with his wife, aged about 28, his mother, and a male friend of the family. This friend was a curious, villainous-looking fellow, a striking contrast to the husband. I was told that when the spirit came up (上來) she would become unconscious, would tremble, sigh, and moan, and that she would remain in this condition for hours; that anger, fear, or any unpleasant emotions would

bring the devil on. I asked if they had any way to invite the *gentleman* now, and they said they had. Upon which the mother and husband stepped into the waiting-room, and the *friend* of the family commenced making a purring noise in his throat; immediately the poor woman cast her eyes around imploringly and became unconscious. The muscles of the throat and neck twitched violently and her head fell on her bosom. I felt her pulse, it was 76 and regular, breathing hurried and rather shallow. Was told by the friend that her attacks frequently came on in this way. Upon my asking how *he* knew in the first place that he could bring the devil up, he stuttered and stammered and took refuge in the waiting-room. Upon which her mother and husband entered again. Sticking needles into her hands and arms being without avail to bring her out of this condition, I held a bottle of ammonia under her nostrils. The effect was magical—she quickly regained consciousness and soon appeared as she had been before the attack, which was simply, an incomplete hysterical convulsion. Since that day I have seen several other cases of reputed demoniacal possession, and without exception they have been easily explained as the result of pathological conditions.

I think there are a good many causes for this delusion in China, which do not exist in the same proportion in some other countries.

The people are mostly ignorant and superstitious, and are naturally susceptible. Fine subjects for experiments in hypnotism and suggestion. Many of these cases of possession are doubtless due to suggestion. Persons of susceptible temperament seeing or hearing of others so afflicted, are tempted to worry or annoy their friends, and are carried away, and frightened by their own emotions, into an hysterical state bordering on actual mania.

Then, too, syphilis is no doubt responsible for some of these manifestations. Syphilis is very common among the Chinese, and I have had a number of cases of cerebral syphilis, and I cannot but believe, that in many of these cases in which erratic movements follow the natural result of the pathological condition, they are attributed to demoniacal possession.

Mania, Dementia, and Hysteria, are sufficient of themselves to account for the cases I have either seen or heard described, and I consider any who believe in demoniacal possession as superstitious and too credible. I should be much pleased to hear the opinion of my medical brethren, and to what cause or causes they attribute these manifestations.

CHINANFU,

January 31st, 1890.

COLOR-SENSE AND COLOR-BLINDNESS AMONG THE CHINESE, BASED ON AN EXAMINATION OF TWELVE HUNDRED PERSONS.

By ADELE M. FIELDE,

Swatow, China.

A love of vivid colors is manifested in all branches of Chinese decorative art. The walls of public buildings are commonly adorned with paintings—historical, dramatic or conventional. Porcelain dishes, paper scrolls, and gauze fans are made to glow with tints that are at once delicate and brilliant. The shoes of all bound-footed women, and the costumes of all actors are covered with variegated embroidery. Countless hues are shown in the silken fabrics which are made into gala-dresses for both men and women. Children, on festive occasions, are always gorgeously attired. Not only little Joseph, but also all his brethren appear in coats of divers colors; and no one thinks it amiss to put on a cap of scarlet, a tunic of buff, trousers of green and shoes of pink. Whether in garb or in pictures, there is nothing in Chinese taste that forbids the juxtaposition of purple and green, of rose and orange, or of any other known tints. Like nature herself, they boldly array themselves in all colors, and the experienced eye is no more offended by their tegument than by that of a mandarin duck or a macaw.

A few colors—black, white, red, yellow, light blue, dark blue, bright green, dull green, and flesh color—have each a name of one independent syllable, while their shades are indicated by prefixed adjectives. Many other colors are designated by reference to familiar objects, as “peach-blossom” for pink; “pig’s liver” for brown; “coir-palm” for russet; “ashes” for drab; and “grapes” for purple. Dye-stuffs furnish terms for several colors, and “ink-water,” thus used, becomes a comprehensible appellation for pale gray; but it is not easy to see why the effects of logwood dyeing should be termed “celestial green” when manifested in satin, though “red night” has a poetic sound for the same shade in cotton goods.

The fact that the cloudless sky is always called green by the Chinese, and their lack of precision generally in regard to colors, led me long ago to consider them deficient in color-sense. As I could find no account of their ever having been scientifically tested for this defect, I read last year the books of Prof. Holmgren and Dr. Jeffries, procured Dr. Thomson’s stick of Berlin wool-tests, and thought myself equipped for preliminary investigations. I have now tested twelve hundred persons, and have found among them twenty who are either red- or green-blind. The two sexes were equally represented in the number tested.

Among the six hundred Chinese women, I found only one who was color-blind by Thomson's tests. This woman was completely green-blind; and all her four sons were color-blind—the eldest three completely green-blind and the youngest completely red-blind.

Among the six hundred men tested, nineteen were found to be color-blind. This number includes the four sons of the blind woman just mentioned. Of these nineteen men, thirteen were completely green-blind, five were completely red-blind, and one was incompletely red-blind. The last was a brother of one who was completely red-blind. The nineteen color-blind men included eleven farmers, two teachers, two students, one hospital-assistant, one preacher, one mason, and one boatman.

By taking the forty skeins of yarn, which are suspended upon Thomson's stick, and piling them in confusion upon a white cloth, I was able to observe, as recommended by Holmgren, the action of the hands in the selection of colors; while the brass tags upon the skeins helped me in making quick record, for future reference and comparison, of the selections made by each individual. I did not, in testing, use the names of the colors; but I first held up the green sample skein, and said: "I am going to pick out, from the pile of yarns, all that are of the same color as this one, whether light shades or dark. Then I shall mix all the yarns together again, and ask you to pick out the same ones that I picked out." When I had taken out all the green yarns, I asked all to look sharply at them, so that they might easily recognize them again. By first showing what I wished them to pick out of the pile, I saved much time in testing the normal-eyed, while I gave no undue assistance to the color-blind.

Upon those found to be color-blind, the tests were repeated, often many times. One color-blind man was very desirous of learning how to distinguish the colors, and as he was at leisure, he remained by my side and gave close attention while a hundred other persons were tested; and yet, after having been repeatedly allowed to "try again," he made precisely the same mistakes as in his first examination. To green he not only added the usual "colors of confusion," but also pale pinks; while with pink he invariably matched bright blues, without adding any of the greens. This young man, like many others, made marked effort to discover differences in the fibres of the wools, or to other find some means of distinguishing the skeins otherwise than by their color. Nine other of the twenty color-blinds in the first test also matched green with pink; but of these nine, eight were proven by the second test to be green-blind, matching pink with green.

In all cases where there was doubt of the patient's clearness of vision, tests for form were applied before the tests for color.

I have, following Young and Helmholtz, set down as red-blind all those who, in the second test, matched pink with blues only; and have set down as green-blind those who in the same test matched pink with greens alone, or with both greens and blues. Nine among the thirteen set down as green-blind matched pink with both blue and green.

The persistence with which more than half of the twelve hundred persons tested matched green with blue is remarkable. Even the brightest blues were added to the selected greens after repeated injunctions against so doing. While the tests established the fact that a much smaller percentage of Chinese women than of Chinese men are color-blind, yet those men who by their out-of-door lives had gained a greater degree of mental training than is possessed by their secluded women-folk, chose the correct colors as rapidly as did the women, and no oftener added blues to greens. While there was an almost universal lack of discrimination between green and blue, two colors distinctly named in their own language, the tests afforded by Thomson's skeins, prepared expressly for testing rail-road employés for red and green blindness only, were insufficient to prove what I now suspect—that many Chinese are violet-blind.

The number examined, twelve hundred, is too small to rely upon for a percentage of red- and green-blindness among the Chinese. Further tests would add nothing to its value, unless subjection to the examination were made compulsory, for many of the color-blind would avoid being tested through fear of appearing stupid before their neighbors. Moreover, the dislike of the Chinese to everything which is not evidently profitable, and their dread of evils that may come to them through occult influences, make it difficult to test any large number. Those examined by me were mostly members of the mission schools and patients in the mission hospital, together with the dwellers in some hamlets, where I endeavored to omit no one from the test.

The proofs of color-blindness must always appear startling to normal vision. It gives one qualms to realize how little one knows of the consciousness of one's neighbor, and how difficult it is to think how the world must look to one who sees the same hue in a tea-rose and a pea-pod, in a rosy cheek and an azure eye, or in a bay horse and a peacock's tail. Even the stolid Chinese appear to be deeply impressed by the exposition of color-blindness.

NOTES ON "SCARLATINA."

By PERCY MATHEWS, M.D.

Resident Physician S. John's College.

Before proceeding to what I consider to be the subject-matter of my paper, I will give briefly the text upon which it is based :—

On the 10th March, a lad presented himself at the S. John's College Dispensary, complaining of headache, nausea, chills, and a general feeling of malaise. I examined him and noted pulse 105, tongue coated with a thick white fur, edges and tip abnormally red. Ordered him to the Infirmary and visited him later on; found temp. 101, pulse 112; fauces, palate, uvula and tonsils red and slightly swollen; breath hot, bowels normal. Ordered KCLO_3 drink with lemon-juice, diet of milk and eggs.

Vesp.—Temp. 103, pulse 120. Complains of throat. Gave Antipyrin grs. x, and, at request, oranges, maintaining KCLO_3 drink.

March 11th, Mane.—Restless night, temp. 104, pulse 115, tongue cleaning, papillæ enlarged, back of throat much inflamed and swollen, consequent pain on swallowing, skin hot dry, complaining of severe frontal headache, urine scanty. Repeated Antipyrin grs. x, swabbed out throat with Liq. Ferri Perchloridi and Glycerine; dieting continued.

Vesp., 8 p.m.—Temp. 104, pulse 128, tongue assuming strawberry appearance. Swabbed out back of throat, repeated Antipyrin grs. x. Visited 10.30 p.m., temp. 103, pulse 130.

March 12th, Mane.—Pulse 120, feeble, rapid, irregular, temp. 103. Fair night, throat somewhat easier, patient generally irritable, tongue dark strawberry color, and scored down centre as in enteric fever, bowels costive. Gave Cal. grs. ii.

Noon.—No appreciable change. Repeated Cal.

Vesp.—Pulse 125, temp. 103; complains much of throat, frontal headache and deafness. Steamed throat with vinegar. Great relief. Antipyrin grs. x.

March 13th, Mane.—Pulse 120, temp. 105, very restless and drowsy. Repeated Antipyrin.

Vesp.—Pulse 130, temp. 104. Repeated Antipyrin and swabbed throat.

March 14th, Mane.—Pulse 122, temp. 105. The third full day. Bright red punctated rash on neck, which soon generally extended. From the 14th to the 18th the lad went on well, the KCLO_3 drink being maintained. Antipyrin *pro ré nata*, dieting as before, with the addition of a little soft rice.

March 18th, Mane.—Pulse 115, temp. 100. A free flaky desquamation setting in, boy sent home, at persistent request of friends, on the 23rd March, convalescent. On the 12th March, another lad, with much the same symptoms as the case just described, was admitted as a patient. The fever ran its course without giving any undue trouble. Temperature did not at any time exceed 103, throat symptoms were much the same, perhaps not equal distress; urine contained albumen. Lad sent home convalescent on the sixteenth day.

Regarding the history of these two cases, it must be remarked, that the first was that of a boy who had but just come out from the Native City of Shanghai. The second, that of a room mate of his. With this somewhat lengthy preface, I will now broach the second part of my subject.

Upon the 13th March, I was called to attend two boys in connection with the College. There was complaint of nausea and chills, temp. 99 in one, slightly higher in the other, tongue in both cases clean, edges and tips suspiciously red. I had them removed to another room of the Infirmary. Both being costive gave Calomel. On the evening of the same day three other boys were added to their number, the day succeeding two more, making seven in all. It will not be of sufficient interest, or indeed serve any practical purpose, to individualize these cases, so I will briefly extend my notes in reference to MING ZEE.

This lad was admitted to the Infirmary on the afternoon of the 13th March, one of the five boys taken in upon that day. Complaint was made of feeling sick, of pain over forehead, of dizziness. Temp. 100, pulse 106, tongue clean with reddened tip and edges, back of throat congested, skin rough.

10 o'clock p.m.—Temp. 101, pulse 115, restless and thirsty. Gave KCLO_3 drink with lemon-juice.

March 14th, Mane.—Restless night, temp. 102, pulse 114, complaining of difficulty in swallowing, tongue intensely red and papillæ enlarged. Swabbed throat with Tinct. Ferri Perchlor. and Glycerine; tested urine for albumen, no results.

Vesp.—Temp. 103.6, pulse 122, throat painful. Gave Antipyrin and Quinine, grs. v of each, and swabbed throat.

March 15th, Mane.—Temp. 102, pulse 124, complaining very much of throat, urine scanty and high-colored, bowels costive. Ordered Pulv. Jalap. Co. and small doses of Tinct. Digitalis with Acetate of Potash, linseed-meal poultice to throat; tested for albumen, slight traces.

Vesp.—Temp. 100, pulse 110, somewhat easier; being requested, repeated linseed-meal poultice to throat. Took soft rice, gave Sulph. Quiniæ grs. xv.

March 16th, Mane.—Temp. 99, pulse 100, fair night, throat less painful, urine albuminous.

Vesp.—Temp. 101, pulse 115, irritable all day, surface of body perhaps abnormally red, but nothing to characterize as, or associate with, the intense hyperæmic condition of scarlatinal eruption.

March 17th, Mane.—Temp. 102.2, pulse 111, bad night, complaining of throat and want of sleep. Swabbed out throat, repeated poultice, and gave Antipyrin and Quinine, 5 grs. of each.

Vesp.—Temp. 101, pulse 120, irritable. Gave Hyd. Chlor. grs. xv.

March 18th, Mane.—Fair night, throat somewhat easier, temp. 100, pulse 112, bowels costive. Repeated Pulv. Jalap Co.

Vesp.—Temp. 101, pulse 105. Linseed-meal poultice to throat, Hyd. Chlor. grs. xx.

March 19th, Mane.—No sleep, temp. 102, pulse 120. Gave Quinine and Antipyrin, of each grs. v.

Noon.—Temp. 100, pulse 103.

Vesp.—Temp. 101, pulse 114. Repeated Antipyrin and Quinine, poultice to throat.

March 20th, Mane.—Temp. 99.4, pulse 118, good night, skin peeling, desquamation something like that of measles, but flaky in places. Repeated Antipyrin and Quinine. Urine albuminous.

Vesp.—Temp. 100, pulse 115. Repeated Antipyrin and Quinine.

March 21st, Mane.—Temp. 99.6, pulse 110, good night and fairly comfortable. Swabbed out throat and repeated Antipyrin and Quinine.

Vesp.—Temp. 99, pulse 105. Swabbed out throat. Bowels costive. Gave Pulv. Jalap Co.

March 22nd, Mane.—Temp. normal, pulse 100, good night, urine albuminous.

Then steady improvement until the 30th March, when he was sent home at request of friends.

As I have before remarked, this case may be taken as very typical of the other six, the throat symptoms, setting in within four-and-twenty hours, being particularly prominent and distressing in each and every case; and if, as it appears in the case now under review, the skin was freed from the violence of the "scarlatinal" poison, compensation was evidenced by the mucous membrane suffering. The persistent throat symptoms in all the cases need not strike one as strange, when it is realized that the epithelium of the one corresponds with the epidermis of the other.

If in brief comment of the foregoing, advanced only as a representative case, supplementing two mild cases of "Scarlatina," we diagnose "Latent Scarlatina," I can only point out that the characteristics of that form of fever, admittedly irregular, are not borne out, seeing that we have here, not only an independent

disease, with marked renal implication from the onset, but a fever with symptoms infinitely more severe than those generally attributed to what is distinctively known as *Scarlatina sine exanthem*, but on reference to the literature of the subject, there does exist a marked analogy between the cases under review and those described by Dr. JAMES MILLER of so-called *Renal Scarlatina*, whose work on the *Pathology of the Kidney in Scarlatina* is quoted from in Dr. GREGORY's *Lectures on the Eruptive Fevers*.

In passing allusion to treatment, I wish to add, that no untoward symptoms, cardiac or otherwise evidenced themselves; it appeared fairly indicated by circumstances, and substantiated by results.

COCAINE AS A LOCAL ANÆSTHETIC.

By DUGALD CHRISTIE, L.R.C.S., L.R.C.P. (Edin.)

The following case may be interesting as illustrating the value of Cocaine as a local anæsthetic in minor Surgery.

The patient, a merchant, suffered from epithelioma of the penis. For over two years he had been going the round of the native practitioners, consulting them in vain, and only suffering severe torture from their often heroic but barbarous treatment. He came to me in a state of despair; weak, emaciated, with his nervous system, from prolonged pain and sleeplessness, in a state of extreme irritability. Although a year previous he had refused to submit to amputation, as I recommended, he now readily agreed to our proposed method of treatment. Chloroform was carefully administered, but, after a few inhalations, proving a bad subject for a general anæsthetic, it was decided to try Cocaine. Twenty minims of a five-per-cent solution of the hydrochlorate were injected, in five-minim doses at short intervals round the seat of incision and into the urethra. A quarter of an hour after first injection, amputation was performed without the patient experiencing the *slightest pain*; indeed, he would not believe me when informed that the operation was over.

Another point of interest is that, except from the large blood-vessels, there was hardly any hæmorrhage, doubtless due to the constricting effect of the drug on the capillaries. As to the after-treatment, there is nothing worthy of note, only that the anæsthesia produced lasted over a day, indeed the patient complained of no pain after the operation. He recovered without a bad symptom, and now enjoys excellent health.

I constantly use Cocaine with satisfactory results in eye operations—Cataract, Iridectomy, etc., also in such cases as Fistula in Ano, Abscesses, etc.

The China Medical Missionary Journal.

VOL. IV.

JUNE 1890.

No. 2.

AN ASYLUM FOR THE INSANE.

The leaflet before us, bearing the above title, is accompanied with the request that we will notice it in the Journal. We do so with pleasure, realizing that the experienced gentlemen whose names are associated with and introduce the scheme, vouch for its need, thus rendering it unnecessary for us to endorse, so we give some extracts, in which its claims are urged and explained, meanwhile confining ourselves to a pithy statement of conviction that a provision for Insane Chinese, such as this, is a work of great practical benevolence, and we trust that not only will it be warmly taken up, but ably supported.

“On the 18th February several gentlemen, who had previously intimated their willingness to act as trustees of an Asylum, were asked to meet for consultation, and the following, presented by Dr. KERR, was adopted as a basis of action :—

‘We, the undersigned, do form ourselves into a provisional Committee for the purpose of inaugurating plans for the establishment of an Asylum for the Insane in Canton or its vicinity.

‘The Committee will in the first place prepare in the Chinese language, and circulate, literature bearing on the subject of insanity, its causes, and the rational and humane methods of treating this afflicted and helpless class of our fellow-men. Plans of building which have been found in western countries best adapted for the custody and care of the insane, will be prepared, and the obligations resting upon society for the support of such institutions will be enforced.

‘The Committee will take charge of any funds entrusted to its care for the above purposes, and when the time arrives for the practical execution of the scheme, it will take steps for the formation of a Society which shall have the management of any institution that may be established.’ [*Signatures.*]

"In presenting this statement to the public, we feel confident that the object aimed at will command the approval of benevolent and humane people of all nationalities and religions. In Europe and America every State has asylums for the insane, and no cost or labour is spared to perfect the means for the care and comfort of this helpless class of the human family. In all this vast Empire *not a single Asylum exists*, and those who are thus afflicted, whether among the poor or rich, are subject to hardship and ill-treatment in many forms, often resulting in premature death. The contact of Western civilization with the Empire is making the Government and people familiar with the material improvements of modern times, and they are adopting such of them as they consider advantageous; but benevolent and charitable institutions, if established on a permanent basis, must be initiated by philanthropic people from the West. Our efforts will be directed chiefly to the circulation of literature which will impress on officials and people the importance and necessity of providing Asylums for the insane, but they will be stimulated and encouraged to action by the example and aid of benevolent people from Western countries, and we feel it will be peculiarly appropriate that the establishment of the

FIRST ASYLUM FOR THE INSANE IN CHINA

should be an international work, just as the establishment of the first hospital in Canton half a century ago was warmly supported by all the nationalities then represented in China. In the promotion of the object which we have taken in hand, we respectfully and earnestly solicit the aid and support of the Press, foreign and native, and of officials, business men, and Missionaries, who in their several positions come in contact with and influence various classes of the people.

"Mr. G. D. FEARON, of Messrs. DEACON & Co., Canton, has kindly consented to act as Hon. Treasurer, and those who desire to contribute to the object in view may communicate with him.

"J. G. KERR,

"Chairman of the Provisional Committee."



NOTICES OF BOOKS.

THE NATIONAL MEDICAL DICTIONARY.

Including English, French, German, Italian and Latin Technical Terms used in Medicine and the Collateral Sciences, and a Series of Tables of Useful Data. By JOHN S. BILLINGS, M.D., LL.D., Edin. and Harv., D.G.L., Oxon., Member of the National Academy of Sciences, Surgeon U.S.A., etc., with the Collaboration of W. O. ATWATER, M.D., FRANK BAKER, M.D., S. M. BURNETT, M.D., W. T. COUNCILMAN, M.D., JAMES M. FLINT, M.D., J. H. KIDDER, M.D., WILLIAM LEE, M.D., R. LORINI, M.D., WASHINGTON MATTHEWS, M.D., C. S. MINOT, M.D., H. C. YARROW, M.D. In two very handsome royal octavo volumes containing 1,574 pages, with two colored plates. Per Volume—Cloth, \$6; Leather, \$7; Half Morocco, Marbled Edges, \$8.50. For Sale by Subscription only.

* This Dictionary is just out, and from the copy before us we can congratulate the distinguished author and his collaborators on the success which they have achieved. The medicine of to-day is cosmopolitan; one must have a knowledge of the medical terminology of the leading languages if he desires to keep up with the times. This dictionary, in two volumes, furnishes us, at a moderate cost, with what we need; and, at the same time it will save us the heavy expense of purchasing a dozen heavy tomes in nearly as many different languages. The special training of Dr. BILLINGS makes him peculiarly well qualified to succeed in the task which he has undertaken. The arrangement of the work is a good one. Principal terms are printed in heavy-faced type, their combinations less prominently, and definitions in a lighter type; this is a wonderful aid to rapidly grasping the sought-for word.

In chemical terms formula are stated, in therapeutical compounds ingredients are given. The etymology and origin of terms are duly attended to. Under each term will be found the equivalent word in French, German and Italian. Accentuation and pronunciation are defined. The Dictionary seems to present an embodiment of the necessary information, and the work will be indispensable to the library of every student. Prefixed to the volume are a series of useful tables. There are tables of doses, of poisons and antidotes; of inch and metre system of numbering, and spectacle glasses; of the comparative values of ordinary and metric weights and measures; of the various thermometric scales; of the average dimensions of the fœtus at different ages, and of the parts and organs of the adult human body. The utility of these latter in medico-legal examinations will be self-evident.

There is a series of tables showing the percentage of nutritive ingredients in a large number of different food materials; standards of dietaries for different classes and occupations, for corpulence, etc. These tables contain the results

of a large amount of new experimental study, and are fully illustrated with colored plates. A new table of the expectation of life, derived from vital statistics up to a recent date, will prove of value.

The thorough manner in which the work is done may be gathered from the fact that the total number of words and phrases defined amounts to 84,844.

The Publishers are LEA, BROTHERS & Co., 706 and 708, Sansom St., Philadelphia, Pa., U.S.A.

A CLINICAL ATLAS OF VENEREAL AND SKIN DISEASES.

By ROBERT W. TAYLOR, A.M., M.D. In eight very handsome imperial folio parts, with 58 full-page chromo-lithographic plates, containing 191 figures, 65 fine engravings and about 400 pages of text. Price per part \$2.50. LEA, BROTHERS & Co., Publishers, Philadelphia, U.S., 706 and 708, Sansom Street.

This Clinical Atlas is magnificent. It is a working guide for the practitioner. The pictures are lifelike in form and color and large enough to give a clear idea of the diseases represented. The illustrations of the greatest living authors have, with their permission, been selected, and these have been complemented by reproductions from original paintings from life gathered by the author from his own practice. The text furnishes clear and explicit directions for the management of cases, of the clinical features, etiology, diagnosis and prognosis. The colored drawings are admirably adapted to furnishing the practitioner with a diagnostic guide. The author recognizes that he is writing for general practitioners; theory is made subservient to practice; in fact, the Atlas furnishes a fund of information of the most practical sort that is quite inaccessible to one who has not enjoyed a large clinical experience. Dr. TAYLOR is an eminent authority in both departments on which he writes, and the possession of this work will be a blessing to the medical man in China, who has to examine and treat so many cases of old, neglected skin diseases, with all the complications which filth and vermin can add to make their true origins obscure.

THE ST. JOHN'S ECHO.

Published every other month by the students of St. John's College, Shanghai. *Editors*:—POW-NIÖN TSÜ, NEW-CHING CHAR, ZUNG-TS WOO, LIANG-CHUNG CHU. *Assistant Editors*:—MEMBERS OF THE FIRST-CLASS. *Contributors*:—BOYS OF THE SCHOOL. *Terms*:—To supporters of Scholarships—Free. To others—10 cents a copy, 50 cents a year. *Agents in America*:—JAMES POTT & Co., 14 Astor Place, New York City, to whom all orders and subscriptions may be sent. *Chinese Address*:—Editors of "St. John's Echo," care of Rev. F. L. HAWES POTT, St. John's College, Shanghai.

We acknowledge with pleasure the second number of the *Echo*. We congratulate the Editorial Staff and the contributors, not only upon their work, well done, but upon the fact that so much good, faithful work is here evidenced, before "the first paper published in the Orient by Chinese lads" could be practicable. We wish it every success, and in the humility of its college motto—"Precept upon precept, line upon line, here a little and there a little"—may it, based upon the "honest endeavour" we ourselves wot of, have a bright and useful future.



HOSPITAL REPORTS.

ALICE MEMORIAL HOSPITAL, HONGKONG,
London Missionary Society.

We have to acknowledge Dr. JOHN C. THOMSON'S full report, for the year 1889. It is prefaced by a special reference to Dr. MANSON, "whose efforts to promote the success of the undertaking were unremitting, and whose departure from the colony was regretted by every member of the staff." Appreciative recognition is then made of Dr. CHUNG, a pupil of the late Dr. MACKENZIE of Tientsin: "his training has been thorough and complete." The subjoined "Statistical Abstract" evidences the year's work:—

Patients admitted to Hospital during the year 1889	...	530
Total number treated as		
In-Patients ..	...	569
Of these there were—		
Dismissed Cured	...	358
" Relieved	...	111
" on other		
Grounds	...	27
Died in the Hospital	30	526
Patients remaining in Hospital on 1st January 1890	...	43
<hr/>		
Hospital Out-Patients—New cases	...	6,726
Hospital Out-Patients—Return visits	...	7,876
Total	...	14,602
Nethersole Dispensary—Out-Patients, New cases	...	1,066
Nethersole Dispensary—Out-Patients, Return visits	...	1,160
Total	...	2,226
Total number of visits of Out-Patients	...	16,828

Prescriptions dispensed to Hospital Out-Patients	...	9,713
Prescriptions dispensed to Hospital In-Patients about	...	1,500
Prescriptions dispensed to Dispensary Out-Patients about	...	3,500
Total [not including repeated prescriptions]	...	14,713

Surgical Operations	...	143
Dental	...	60
Vaccinations	...	113
Casualty Cases	...	15

THE STUDENTS.

Ten students live in the Hospital, and among them share the dressing, clerking, dispensing, minor duties at operations, etc. As they each hold every minor post in rotation, for two months at a time, they acquire a large experience.

EVANGELISTIC WORK.

"A daily Scripture exposition is conducted with the Out-Patients previous to the arrival of the consultant for the day, and a Sabbath morning service for the In-Patients in the Chapel, at which practically all who are able to leave their beds are present. More important, however, in my estimation, is the bedside teaching conducted daily in the male wards. During the latter half of the year, an old carpenter, who acts as a sort of lay agent of the Mission, has devoted much of his time to this work, and seems to secure a very interested attention, as sitting on the edge of a bed, perhaps with the Scriptures, or a picture representing some scene from the life of Christ, in his hand, he chats with the patients by twos or threes. Hospital evangelistic work must be largely sowing, comparatively little of it reaping."

MISSION HOSPITAL AND DISPENSARY,
TIENTSIN (for 1889).

London Missionary Society.

Dr. FREDK. C. ROBERTS tells us that "the number of patients seeking medical relief during the past year has been considerably larger than in 1888."

Dispensary Attendance:—

Number of New Cases treated 5,010

„ Visits paid to

Dispensary 18,122

"The Hospital Compound consists of two large wards and three small ones. There are 45 beds."

MACKENZIE MEMORIAL WARD.

Through the kindness of the committee of the "Mackenzie Memorial Fund," a fund raised by the Tientsin Foreign Community to erect a tomb-stone to the memory of the late Dr. MACKENZIE, the surplus (\$350) was voted toward furnishing a ward to be called by the above name. This ward has now been fitted up, and promises to make the patient as comfortable and happy as he can possibly be under existing circumstances.

"The number of In-patients during the year was 429; Surgical operations, 188.

We extract the following "Medical Notes."

"*Stricture of Oesophagus.*—This is comparatively common in North China. The cause in many cases is very obscure. Excessive drinking of the native spirits, and the habit of taking food while very hot explains some cases.

"*Gangrene.*—In some of the cases it would seem to have been brought on by Ergot Poisoning. The one case of major amputation during the year was for this disease. Hardly any bleeding points could be detected owing to the diseased condition of the vessels after Ergot poisoning. The anterior flap sloughed partly, yet the stump eventually healed; the opposite foot, however, became affected with Gangrene ere long.

"*Malarial Fever.*—The Tertian variety of Intermittent Fever is the most common. Remittent fever is even commoner than Intermittent and in some cases runs its course for 3-5 weeks, closely simulating Typhoid Fever in some aspects and practically unaffected by the usual Malarial drugs.

EVANGELISTIC WORK.

"During the spring we had stirring times spiritually in the wards, and many applied for baptism. This was due in large measure to the instrumentality of two of the in-patients whose ailments allowed of their working actively among their fellow-Christians, and whose Christian zeal was most marked. The first of these two was a trader named Li, aged 45, who all his life had been a moral man, and was up to the time of his first admission into hospital a member of a powerful sect called the "Tsai Li-Ti," the main rules of which sect are abstinence from tobacco, opium, and alcoholic drinks. While with us, Li used to tell with delight how he was led to pray for the gift of the Holy Spirit and how God heard his prayer and helped him to learn the doctrine and on his return home to remove his idols from his shop and to endure much ridicule from many former friends."

CHINANFOO DISPENSARY.

American Presbyterian Mission.

Dr. ROBT. COLTMAN, jr., in his report for 1889 first makes sad mention of the death of one of their small number, then, following on, "the foreign community, small as it is, was visited by diptheria, small-pox, typhus and famine-fever."

"The attendance at our Dispensary is rapidly increasing in the better class of patients, and scarcely a day of the last three months has passed without one or more visits being paid to the families of officials,

from the Fan-t'ai down to the Hsien-kuans and Hou-pus. The tone of the popular feeling is not quite so hostile as formerly, and I hope and believe that an era of better feeling has begun.

"Our increasing popularity is shown by the following figures :—In 1886 the attendance was 5,714 ; in 1887 it was 6,189 ; in 1887 7,221 ; and the past year, 8,495."

We quote from Notes of Cases :—

"In February, I, accompanied by two native assistants, went to a village sixty li South of Chinan-fu, and operated on a young man aged 25 for stone in the bladder; the stone was larger than an ordinary tea-cup and required to be broken into numerous pieces before it could be extracted. I

remained for five days, after which I left the patient in charge of an assistant. He made a rapid and complete recovery and was out walking in twenty-five days; the operation was the usual lateral perineal one."

The Doctor tells us of itinerating work in Yü-ch'eng-hsien, prescribing for 525 patients and operating ; and at Chei-chia-chuang, 130 patients.

"The street chapel in front of the dispensary has been well attended throughout the year, and the daily preaching by the foreign and native preachers has certainly had a good many listeners, though results in actual conversions are not visible."

P. M.

SOCIETY REPORTS.

The Regular Monthly Meeting of the Shanghai Medical Missionary Association took place on the afternoon of the 18th February at St. Luke's Hospital, the Vice-President, Dr. BOONE, in the Chair. Present: Drs. BOONE, GALE, MATHEWS, and HONY. Members Drs. REID and LALCACA. The routine business being disposed of, Dr. GALE introduced a patient for diagnosis. A ric-sha coolie, who for some months had noticed the formation of a lump, which at times gave him pain. Being examined, two or more tumours—soft, lobulated, moveable, and free from pain—were discovered, extending laterally and superficially between the last two vertebro-sternal ribs, and immediately over the ensiform appendix. Fatty tumour diagnosed.

Dr. LALCACA then read his paper on Neuralgia, which appeared in the March No. of the Journal. In the ensuing discussion it was remarked that there was nothing very helpful in the diagnosing of the case, and as many drugs had been tried, a new departure would be to forego further medication, and send the man away to a drier and more bracing climate than that of Shanghai.

A vote of thanks to Dr. LALCACA for his interesting paper terminated the meeting.

18th March 1890.

The meeting being called to order by the Vice-President Dr. BOONE, the minutes of the previous meeting were read and confirmed.

Dr. REID read Notes of a Case of Disease of the Brain, supposed Tumour of the Pons, by Dr. JAMIESON, a report of which appears in the present issue of the Journal.

Dr. REID then read his own paper on "Rubella Sinensis"—*Synonym*: "Wind Measles." In the course of the discussion which followed, Dr. LALCACA reported some cases which he had seen. They resembled those described by Dr. REID, except that he had not noticed the condition of the pharynx, on which Dr. REID laid such stress. He did not consider them cases of ordinary Chinese Measles. Dr. BOONE remarked that for years he had observed cases of Chinese Measles among boys, girls and infants at S. John's College and elsewhere; that in them, fever often ran high, with marked coryza, copious eruption, crescentic in grouping, and coming out in successive crops, lasting for about one week. It differs from European Measles in being rarely followed by sequelæ of any sort. He then related the histories of three cases just treated:—

A child, æt. four, had slight congestion of the mucous membrane of eyelids, and complained of pain in the eyes, no fever. Boric sol. dropped in eyes. On the night of the second day, slight eruption on both cheeks, next morning a number of dusky red papules appeared coalescing to form spots irregular in size and shape, non-crescentic, largest spots $\frac{1}{2}$ in. in long diameter; no spots on chest or abdomen, a few on neck, where the collar rubbed; on arms, thighs and legs, numerous minute red points, like the prick of a pin, were seen, discrete, temp. 99. The eruption disappeared on the sixth day, temp. falling to normal; the child appeared quite well in all other respects; did not resemble measles as usually seen. Roof of mouth behind hard palate reddened, some dark papules. Two other cases were observed in children who had had very severe attacks of scarlatina six months ago. These two children had mild attacks and recovered rapidly from the disease above described. They had no throat symptoms. Dr. REID said that these last cases seen by Dr. BOONE corresponded with what he had described in his paper, and he was certain that neither his cases nor those reported by Dr. BOONE, were Chinese Measles. If he gave them a name, it would be "Rötheln," or German Measles. Dr. LALCACA also inclined to this opinion.

A vote of thanks was then tendered to Dr. REID for his interesting paper, and the meeting adjourned.

15th April 1890.

The meeting having been called to order by the Vice-President, Dr. BOONE in the Chair, the minutes of the former meeting were read and approved, and the election of officers to the local Society then proceeded with.

Dr. REIFSNYDER was proposed, seconded and elected to the Presidency of the Society for the ensuing year.

Dr. MATHEWS to the Vice-Presidency for the same period.

Dr. BOONE consented to act as Secretary until other arrangements could be made.

Dr. MATHEWS was then called upon to read his paper "Notes on 'Searlatina,'" an account of which appears in the current number of the Journal. Dr. BOONE, in opening the discussion, remarked upon the absence of parotid and other glandular trouble of the neck, the absence of any ulcerative process of the throat, and the desquamation being partly like that of Measles. In reference to treatment, he considered that great caution would have to be exercised in the giving of Antipyrin, seeing to its depressant action upon the heart.

Dr. MATHEWS considered that the two drugs, Antipyrin and Quinine, had acted well, and with no untoward cardiac symptoms. The combining of the two drugs had been suggested to him in reading, and he thought they had been administered with advantage in the cases under consideration.

Dr. BOONE then brought forward a new method of treatment adopted in New York, that of chloral hydrate having been most satisfactory if given in sufficient doses; it allayed all nervous disturbance and restlessness, relieved insomnia, lowered the temperature and also had some effect as an antiseptic.

It was then moved and seconded that, in view of the Conference, the meeting should stand adjourned until the third Tuesday in June.

The meeting then adjourned, a vote of thanks being tendered to Dr. MATHEWS for his paper.

PERCY MATHEWS, M.D.,

Secretary.

PROGRESS OF MEDICAL SCIENCE.

THE SURGICAL TREATMENT OF TYPHLITIS.

From a paper by Dr. Treves, published in the *British Medical Journal*, we take the following: 1.—The operation should not be performed until all inflammatory and other symptoms have quite subsided. 2.—The incision should be made obliquely from above, downward and inward over the cæcal region, its lower extremity ending just external to the epigastric artery. The incision should not be made directly over the appendix or over the duller region. If it be so placed a number of adhesions will probably be encountered and the demonstration of the peritoneal cavity might be difficult. The cæcum or the appendix might be actually adherent to the anterior abdominal wall. The incising of the peritoneum should, therefore, be conducted with the very greatest care. It is well that the parietal cut should open the abdomen at a point just beyond the diseased area, and where no adhesions exist. 3.—When the appendix and cæcum are exposed, the area of the operation should be cut off from the general abdominal cavity by sponges. If this plugging with sponges be well carried out, no blood should enter the peritoneal space. 4.—All adhesions should be divided by cutting; none should be “broken down.” The latter measure is apt to tear the bowel, or, at least, to have it of peritoneum. 5.—The appendix should be lightly clamped close to the cæcum, and should be divided about half an inch from that intestine; it should not be secured by a simple ligature. The mucous membrane should be united by many fine sutures, or by a continuous suture; then the divided outer walls of the process should be brought together by a second row of sutures; it is practically impossible to bring the serous

coats together. To still further secure the orifice, the stump of the appendix might be lightly attached to any adjacent surface of the peritoneum. 6.—The abdominal wound should be closed; no drain is required.

ANTISEPTIC IRRIGATION OF THE KNEE-JOINT FOR CHRONIC SYNOVITIS.

Maurice H. Richardson reports three cases of chronic synovitis successfully treated by antiseptic irrigation of the knee-joint. The procedure is described as follows; under ether a large aspirating needle is introduced into the knee-joint on the outer side, just above the patella. The effused liquid is removed and a like amount of a 5 per cent. solution of carbolic acid is injected. This is in turn exhausted. The limb is then placed upon a posterior splint, the wound dressed antiseptically, and a cure effected in from two to four weeks. Dr. Richardson remarks: Many such operations have been done abroad, especially in Germany, with marked success. The ordinary treatment, by compression with or without aspiration, rest, splints and so on, has rarely been productive of a cure, or even of lasting benefit. Although the immediate effects of the treatment by irrigation are good, it is too soon to say that there has been a permanent cure. It is, however, safe to say that we may expect a permanent cure if we continue this treatment, and make use of repeated aspirations should fluid reappear. It is important to use a needle of considerable size, because of coagulation and precipitation of the albumen in the joint fluid by the carbolic acid. The best point to introduce the needle is through the fibres of the vastus externus, on the outer side, just above the patella. While the procedure is very simple

it should not be employed indiscriminately, nor until ordinary means have failed, and then only with the greatest care, especially as to cleanliness and asepsis.—*Boston Medical and Surgical Journal*.

PUNCTURE OF THE BOWEL IN INTESTINAL OBSTRUCTION.

Dr. O. Rosenbach (Berl. klin. Woch., 1889, No. 17) advises puncture of the distended bowel in complete obstruction. The arguments against this procedure are: (1) It is dangerous; (2) it does not accomplish enough, being merely symptomatic treatment; (3) it is with advantage replaced by laparotomy, done either for the formation of an artificial anus or for the removal of the obstruction. The first objection is met by observing certain details in the operation, which are careful antiseptics, the employment of a suitable cannula, proper selection of the site of puncture, and carefulness in the withdrawal of the needle. By observing the foregoing details the second objection is met. Regarding the third objection, no harm can be done in first resorting to the simple and safe operation of puncture. The histories of a few cases are briefly sketched bearing out the author's assertions.

[The article possesses particular value in connection with the author's former articles in the same journal on the pathology and treatment of intestinal obstruction. Many cases of this condition are merely functional and may be treated successfully by suitable diet, by paralyzing the bowel with small and oft-repeated doses of opium, and by treating symptoms as they arise.]

THE USE OF SALOL IN PRODUCING ANTISEPSIS OF THE URINARY PASSAGES.

At a recent meeting of the Société Médicale des Hôpitaux, M. DREYFOUS discussed the question of rendering the urinary passages antiseptic by means of internal medication, instancing the good effects he

had obtained from the use of salol in many cases of hlenorrhœa. By administering salol, we produce a stream of aseptic urine, which washes the mucous lining of the kidneys, bladder, and urethra, thus establishing the antiseptics of these surfaces much more thoroughly than can be done by the use of injections from without. Sahli has shown that the urine of persons who are taking salol is antiseptic, and also that the salol is well horue, even in large doses. It has the advantage of being only slightly soluble, and so non-toxic; and seems to reserve its action for the urinary passages, and its adaptability for this special end is comparable with the action of naphthol in intestinal antiseptics. M. DREYFOUS has administered the salol, alone or in combination with halsams, in seven cases of blennorrhagia, the dose varying from five to eight grains. The discharge decreased rapidly in each instance, and in one case which had lasted for four days the cure was complete in three days. The good results seem to be attributable to the fact that the salol renders the urine aseptic, and probably antiseptic. Certain cases, in which the salol was administered alone, proved that the good result was due to it, and not to the halsams, although the speaker preferred to give it with copaiba or cubebs, in order to hasten the cure. If this effect of the drug shall be well established, it will commend itself to the surgeon in those cases where it is desired to render the urine aseptic before an operation upon the genito-urinary tract, —*The American Journal of the Medical Sciences*, February, 1890.

ANTHRAX CURED BY SUBCUTANEOUS INJECTION OF CORROSIVE SUBLIMATE.

A large malignant pustule was situated on the back of the hand of a man who had been engaged in removing the hides of cows, having a superficial graze on the back of

bis hand. The index-finger was of double its normal size; two extensive vesicles, filled with dark serum, included the dorsal aspect of the first and second phalanx; lymphatic inflammation extended from the hand up the forearm on the radial side. Six subcutaneous injections, with a four-thousandth solution of sublimate, with the view of forming a protection against the encroachment of the bacteria. It was not without some resistance on the part of the patient, in consequence of the intensity of the pain occasioned by them, that these injections were repeated during eight days. Besides the injections the hand was kept in a warm bath of sublimate solution during the day-time, and at night was covered with a cataplasm of chopped walnut leaves, moistened with the sublimate solution. This treatment was continued for six days longer, and terminated in cure of the gangrene. Cicatrization was complete in fifteen days.—*L'Union Médicale*.

SOME CASES OF INTESTINAL OBSTRUCTION.

Dr. GELPKE reports four cases of intestinal obstruction, of which two had been operated on, one with success, and two had been successfully treated with metallic mercury. From these cases he concludes that quicksilver is a valuable remedy in cases of obstruction, and that the metal seems to be quite innocuous to the system if not too long retained. It had been so retained in one of the two cases, in which four teaspoonfuls of quicksilver had been given, and the feces and urine of the patient contained the drug for twelve weeks; there were other distinct symptoms of mercurial poisoning, such as great emaciation, excitement, loss of hair, and some stomatitis. The other patient, on the contrary, showed no signs of mercurialism whatever. He considers that in bernia it is generally advisable to commence the abdominal section from the orifice

of the sac. Finally, considering the uncertain and not very successful results of laparotomy, he would not operate before other means, such as quicksilver, have been tried for from four to six days. Dr. REITZ has reported the case of a laborer suffering from obstruction of the bowels, who, after three days' fruitless administration of purgatives, was brought to the hospital. Fecal vomiting was present, and a tumor could be felt on the left side of the umbilicus. Enemata of water by the long tube, though as much as six pounds of water were injected, were unsuccessful, but the vomiting and sickness improved under repeated washing out of the stomach. The next day the patient was considerably worse, and fecal vomiting returned, with cold perspiration, restlessness, meteorismus, a pulse of 120, and a temperature of 100° F. After the enema with the long tube had been again used, and the stomach repeatedly washed out, without any improvement, seven drachms of bicarbonate of soda in five ounces of water were injected into the rectum, followed by three drachms of tartaric acid in the same amount of water, and the anus closed. The patient, who was on his knees and elbows, complained at once of severe abdominal pains, and in five minutes the injection came away with exceedingly offensive flatus. Shortly afterward the patient felt considerably better. In three hours the enema was repeated with half the previous doses, and was shortly followed by a large loose motion, and by a second later on. The patient completely recovered.—*The Lancet*.

TREATMENT OF BUBOES BY IODOFORM VASELINE.

The following is Professor PONTAIN'S "rapid method" of curing buboes: 1. Washing and disinfection of the region by means of hot sublimate solution (1:2,000). 2. Puncture with the lancet if the skin is soft; with the straight bistoury if the pus

is deeply situated. The puncture is small and made in the most fluctuating point. 3. Evacuation of the pus, gently pressing out completely the contents of the ganglion. A few injections of sublimate solution are now made to wash out the cavity. 4. Injection of iodoformized vaseline melted by heat. The oil is to be gently injected in by means of a glass syringe previously charged and placed in hot water. 5. Dressing with absorbent cotton. As soon as the cavity is full of the iodoformized vaseline, a wad of cotton, soaked in sublimate solution 1 : 1,000

is placed over the bubo, and kept in place with a spica. The contact of the cold congeals the vaseline, and makes a plug at the orifice of the abscess. After the first day all pain disappears, and, usually, healing is complete in six or seven days. In some cases it is necessary to renew the injections of vaseline. Out of forty-one buboes thus treated by the author, more than half were cured in less than five days. The most rebellious required twenty-three days.—*Journal of Cutaneous and Genito-urinary Diseases*, December, 1889.

NOTES AND ITEMS.

Dr. H. W. BOONE, of Shanghai, China, states that additions are to be made to St. Luke's Hospital building in that place, the expenses to be paid entirely out of the savings and investments of the hospital.—*Times and Register*.

IODOFORM IN CHRONIC DYSENTERY.

Mr. STARK (*Lancet*, November 10th, 1889) successfully treated a case of Chronic Dysentery, of 18 months' standing, by means of enemata of 2 grs. of Iodoform suspended in mucilage of starch, given twice or thrice daily.

TREATMENT OF HÆMORRHOIDS BY GLYCERINE.

Enemata of Glycerine (2 dr.) repeated daily for some time, is recommended as a cure for Hæmorrhoids, by a correspondent in the *British Medical Journal*.

EZERINE IN NIGHT-BLINDNESS.

A Native surgeon in India has treated all his cases of Night-Blindness for the past five years with instillation of Ezerine drops, and has found the treatment to be satisfactory.—*India Medical Gazette*.

For the treatment of hæmatemesis, Dr. FLASHER (*Algem. med. centr. Zeitung*, No. 55, 1888) considers hot water as the safest and most pleasant remedy. He gives it in successive quantities of one-half to three-fourths of a tumblerful of water as hot as it can be borne. Coagulation of the blood occurs quickly, as shown by the subsequent vomiting of pieces of clot which are discharged without further hæmorrhage.—*Medical Chronicle*.

"Change of Climate is what you need," said the high-priced physician, after he had

listened to all the details of the patient's case. "Change of climate!" exclaimed the patient, in surprise. "Why, man alive, I've never had anything else. I've lived right here in Shanghai all my life."

In *facial erysipelas*, where you cannot conveniently apply ordinary means, paint the part with a 10 % iodoform collodion.—*Provincial Medical Journal*.

TREATMENT OF PHLEGMASIA DOLENS.

Recipe.—Extract of opium, extract of belladonna, extract of hyoscyamus, extract of hemlock, of each 3 parts; vaseline, 30 parts. This ointment to be applied along the course of the inflamed vein.—*L'Union Medicale*,—*Medical News*.

Alum in Sweating Feet.—Dr. ZIEGLER, of Berne, fieldsurgeon-general (*Oberfeldarzt*) of the Swiss army, draws attention to excellent services obtained from a "foot-powder (*Fusspulver*)," used by Swiss soldiers suffering from bromidrosis. The powder consists of two parts of alum and ten of talc. Unlike chromic acid (which as a remedial means for sweating feet was recently successfully tried by the Prussian Military Medical Department), the alum-powder is entirely free from any toxic properties, and may be conveniently employed even in patients with bad sore feet.—*Provincial Medical Journal*.

Dr. HEITZMAN, of New York, has found salicylic acid superior to chrysarobin and tarry preparations in a variety of skin diseases. In callosities, corns, warts, etc., no agent softens and destroys these tissues so well, except perhaps, acetic acid. It is also to be regarded as a valuable parasiticide. It is used either in the form of powder,

plaster, ointment or solution.—*New Orleans Medical and Surgical Journal*.

Professor DA COSTA, in "Class Room Notes," suggests the following:—

In *erysipelas* in strong, robust subjects, pilocarpine or jaborandi, 1-6 gr., of hydrochlorate of pilocarpine hypodermically; repeated again in four hours, provided pronounced diaphoresis has not occurred.

For the irritative fever of phthisis pulmonalis, when treatment is absolutely necessary:

R. Antipyrin,	gr. ij.
Quininae sulph.,	gr. j. M.

Ft. j. in capsul.

Sig.—One every few hours.

As local treatment of the joints in acute rheumatism, among other means:

R. Potassi nitratis,	oz. j.
Morph. sulph.,	gr. ij.
Aq. destil.,	Oj. M.

Sig.—Keep the joint saturated.

In the treatment of the laryngeal complications of phthisis, the insufflation of iodoform or application of cocaine.

In cases of bronchitis in children, tending to spread downward and become capillary, the administration of iodide of potassium.—*Canada Medical Record*.

In the case of a child with tubercular disease of the knee-joint, after breaking up the existing adhesions and placing the part on a splint, Prof. GROSS directed rest, extension, and the following:

R. Iodoformi,	p. j.
Unguent. simpl.,	p. x. M.

Sig.—Rub well in twice daily,

In the treatment of a chronic ulcer, free the bound-down edges, paint the surrounding tissue with equal parts of alcohol and iodine, touch the surface thoroughly with solid nitrate of silver, put the patient to bed, and wrap the limb up in a solution of lead-water and laudanum.

The Chloral Treatment of Scarlet-Fever is strongly recommended by Dr. WILSON, of Philadelphia. He gives the drug in doses of gr. j. to gr. v.

In a case of inflammation of the patellar bursa, with accumulation of fluid, Prof. GROSS tapped the sac by a trocar, removed the fluid and injected twenty drops of pure carbolic acid.

LUSTGARTEN treats eczema of the arms and genitalia with a salve composed of oleate of cocaine 40 parts, olive oil 200 parts, and lanolin 1,000. Rub in well twice daily.

The following is BUCKLEY's anti-pruritic ointment: Gum camphor, chloral hydratis, of each one drachm. Mix and rub together until a liquid results, then add one ounce of ointment of rose-water.

We learn that throughout his fatal illness the late Marquis TSËNG was attended by Dr. DUDGEON of Peking.

DIPHTHERIA.

In view of the many difficulties presented in the treatment of the above, the suggestions made by Dr. BURGHARDT (*Wiener Medical Wochensh.*, September 28 to October 5, 1889) seem worthy of attention:

He rubs equal parts of sulphate of quinine and washed flowers of sulphur together into a very fine powder. One and a half to three grains of the powder must be blown upon the diseased parts with a common insufflator,

the mucus having been previously removed from the throat by a gargle or a drink of water. After the mass of powder has been blown upon the parts most diseased, that which remains in the insufflator should be blown upon the adjacent surfaces, into the posterior nares, the recesses of the larynx, and into the anterior nares. This should be done twice a day, both during the disease and, with smaller doses, for some days after the disease has disappeared.

PUTTING NEW WINE INTO OLD BOTTLES.

Dr. THEODOR CLEMENS, writing in the *Allgemeine medicinische Central-Zeitung*, proposes the injection of the freshly passed urine of a child into the bladder for the cure of chronic cystitis in aged persons. The bladder is first thoroughly washed out, and then filled with urine which has just been passed by a healthy child. He claims to have obtained excellent results with this novel therapeutic agent.

HOW LONG HAS SYPHILIS BEEN KNOWN IN CHINA?

In a lecture on Syphilis delivered before the Royal Academy of Medicine, Dublin, Mr. H. Fitzgibbon is reported to have read a quotation from Lancereaux's work on *Syphilis in ancient times and in the Middle Ages*, found in Chinese medical writings so far back as 2637 B.C. This describes, it is said, what one cannot fail to recognise as a hard chancre, followed by all the phenomena which mark the course of a neglected case of Syphilis. [This date seems to be somewhat wild. WYLIE states that the oldest medical treatise extant is probably the *Hwang te soo wan*, which there is reason to believe, he says, to have been written several centuries before Christ. The subject is an interesting one. We commend it to the historic genius of Dr. JAS. C. THOMSON.]

When hospital gangrene occurs, isolate the patient at once. Remove the slough by roughly rubbing with sponge (immediately burning the sponge used), cleanse with warm water, dry the wound and cauterize thoroughly with chloride of zinc (with just sufficient water to convert it into an oily liquid) by means of absorbent cotton; allow cauterant to remain on ten minutes; remove and apply antiseptic dressings. An anæsthetic should be administered during treatment; good nourishing diet and opium to relieve pain subsequently. — *Professor Gross.*

ARRIVALS.

At Shanghai, May 9th, Dr. H. D. and Mrs. PORTER, A.B.C.F.M., Pangchuang (returned)

At Shanghai, May 16th, Miss REIFSNYDER, M.D., Margaret Williamson Hospital, Woman's Union, West Gate (returned).

DEPARTURES.

From Shanghai, May 17th, Dr. D. D. MAIN, Mrs. MAIN, and two children, C. M. S. Hangchow (returned).

MARRIAGE.

RHEIN—BOONE.—On May 3rd, at S. John's Collegiate Church, Jessfield, Shanghai, by the Right Rev. Bishop BOONE, D.D., Missionary Bishop of Shanghai, father of the bride, assisted by the Reverends H. C. HODGES, M.A., Y. K. YEN, M.A., and F. H. L. POTT, B.D., Mr. JAN RHEIN, Chargé d'Affaires for H.M. the King of the Netherlands, to CAROLINE WILDING BOONE. We supplement the notice by tendering our sincere congratulations to the bridegroom—to the bride—the bride, who is the granddaughter of the late highly-esteemed Bishop BOONE, M.D., D.D., the daughter of our Bishop of Shanghai, and the niece of Dr. BOONE, the President of the Medical Missionary Association of China. That Mr. and Mrs. RHEIN may have much great happiness is the earnest wish of the many friends in China, who of "auld lang syne" are associated with an honored name.

DEATH.

At 4, Minghong Road, Shaughai, on the 6th May 1890, LUCY MARY, infant daughter of Dr. H. W. and Mrs. BOONE, aged two years, seven months and twenty-three days.

CORRESPONDENCE.

To the Editor of the

China Medical Missionary Journal.

NANKING, May 24th, 1890.

Dear Dr. MATHEWS,

I would like to offer the prescription of a pill to aid in the cure of the Opium Habit:—

R.—Quinæ Sulph. grs. iij.
Ext. Nux. Vom. - gr. ¼.
Ext. Cannabis Ind. gr. ¼-½.
Capsicum gr. ¼.

Dose.—One pill as required to relieve the *Kin-ku-tang* (pains of bones and muscles) and other sufferings of the patient. Extr. Ergotæ Fl. is very useful in relieving the spermatorrhœa. I do not think that this is a dangerous pill to be given a patient to be

used at his home, and have thus used them, and have cured several patients without taking them into the hospital. I have great comfort in treating opium cases with the remedies I at present use. The Quinine and Hemp are recommended by one of the leading experts in this disease in America as the best remedy. Quinine in five to ten grain doses is about the best pick-me-up in periods of depression of a cured case when there is danger of his returning to the habit. Tonics, Quinine, Irou, Nux Vomica, Hypophosphites, etc., are of course used after the greater part of the sufferings are over.

Yours sincerely,

W. E. MACKLIN.

SHANGHAI, 10th May 1890.

Mr. CHAIRMAN and GENTLEMEN,

We the undersigned herewith beg to submit you a Statement of Account compiled in accordance with the motion adopted at the Meeting, held preliminary to the Conference, at S. Luke's Hospital on the 6th day of May 1890.

We have the honor to be, Mr. Chairman and Gentlemen,
Your obedient servants,

ROBERT C. BEEBE, } *Censors.*
FRED. C. ROBERTS, }
PERCY MATHEWS, *Secretary.*

THE MEDICAL MISSIONARY ASSOCIATION OF CHINA

IN ACCOUNT WITH THE TREASURER OF THE SAME.

<i>Dr.</i>			<i>Cr.</i>
To Balance handed him by Dr. Gale, the late Treasurer, 29th April 1890	\$ 88.17	May 9th. By Sundry amounts paid as per receipts sub- mitted... ..	\$ 11.77
		By Balance in Bank (as per Pass Book) ...	76.40
	<u>\$ 88.17</u>		<u>\$ 88.17</u>

ABSTRACT OF ALL ACCOUNTS INCLUSIVE FROM JANUARY 1889 TO MARCH 1890.

To Balance Reserve Fund	\$ 165.50	By Kelly & Walsh, Ltd.	\$ 433.90
" " late Treasurer	88.17	" " " " " " " " " "	95.00
" Amount Kelly & Walsh, Ltd. ...	320.50	" Sundries paid "	11.77
" " " " " " " " " "	103.00	" Balance	136.50
	<u>\$ 677.17</u>		<u>\$ 677.17</u>

IN ACCOUNT WITH THE MANAGING EDITOR OF THE MEDICAL MISSIONARY JOURNAL.

To Messrs. Kelly & Walsh, Ltd., Cr. balance as per statement handed in	\$ 8.00	By Balance in Bank, as per Pass Book, &c., Messrs. Kelly & Walsh, Ltd., acknowledgement	\$ 60.10
" Pass Book Hongkong & Shanghai Savings Bank handed in ...	52.10		<u>\$ 60.10</u>
	<u>\$ 60.10</u>		

E. & O. E.
S. JOHN'S COLLEGE,
10th May 1890.

MEDICAL MISSIONARY JOURNAL,—ABSTRACT OF COST FOR 1889.

Gross Income of Journal	...	...	...	...	...	...	...	\$ 469.00
Total cost of same	...	...	...	...	...	...	...	433.00
							Balance	\$ 36.00
								<hr/>
Journal Expenses	...	...	...	...	...	...	...	\$ 433.00
Net income	...	...	...	...	...	...	...	320.00
								<hr/>
Dr. balance met from Reserve Fund	...	...	...	...	...	...	...	\$ 113.00
								<hr/>
Owing from Subscribers 1889	...	...	...	...	...	...	...	149.00
Written off	...	...	...	...	...	...	...	7.00
								<hr/>
							Balance	\$ 142.00
								<hr/>

Report accepted,

(Signed) H. W. BOONE,

PERCY MATHEWS,

*President of the Medical Missionary Association.**Treasurer & Secretary.*

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Edited by

PERCY MATHEWS, M.D., F.R.G.S.,

Shanghai.



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1890.

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Dr. Kinnear. Dr. Hopkins. Prof. Thwing. Dr Mathews, (*Editor*).

Dr. Park.

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VOL. IV.

SEPTEMBER 1890.

No. 3.

CHINA MEDICAL MISSIONARY ASSOCIATION.

MEETINGS OF MEMBERS IN CONFERENCE.

FIRST SESSION.

(Monday Morning, May 19th.)

The President. H. W. BOONE, M.D., in the Chair.

Secretary, The Rev. S. R. HODGE, M.R.C.S., L.R.C.P. (Lon.)

The Rev. Dr. H. D. PORTER offered prayer.

The PRESIDENT, in formally opening the meeting, said, that he could not refrain, in taking the chair that morning, from giving an expression of warm greeting and welcome to those present, and of the gratification he experienced at the large attendance from all parts of China. He then called upon Dr. Kerr to read the first paper.

PAPER.

1.—By J. G. KERR, M.D., Canton.

*Introductory.—Medical Missionaries in relation to the
Medical Profession.*

The study of Medicine embraces a wide range of sciences which cultivate the intellect and enlarge the mind. It is therefore considered one of the learned professions, and its members occupy positions of influence in every community.

Medical men have to do with the sufferings of their fellow-men, and these sufferings appeal to the better feelings of those from whom they seek relief.

Medical men have to do with the poor, and are often called to minister to them, without hope of remuneration. This unrewarded service cultivates a spirit of benevolence and charity, and begets a feeling of compassion for the unfortunate in the time of their affliction. The Medical Profession is therefore known as one characterized by the benevolence of its members.

Moreover, medical men have to do with diseases which men have brought upon themselves by immoral and impure practices, and the indulgence of the baser appetites, and they thus become familiar with the weakness and depravity of human nature, which bring so much disease, degradation and death to our race.

Medical men are brought in contact with the young at a time when their characters are being formed, and when they are peculiarly susceptible to influences, either good or bad, and it is of the utmost importance that those to whom they look for guidance, should be men of pure minds, noble instincts and correct principles.

The duties of medical men in their professional relations, include the healing of disease and its prevention, by the removal of its causes. In a strictly business view, the duties of physicians are limited to the removal of disease after it invades the body. It might be claimed that the prevention of disease, by measures inaugurated by medical men, restricted to that extent, their business. But the members of the Profession have ever recognized the duty of devoting their energies to the investigation of the causes of disease, and to their removal when possible. The sanitary measures which have been adopted by states and municipalities for the protection of families, public assemblies, cities and travellers, and to limit the spread of epidemics, show the enlightened public spirit of the Profession as a body, and the great influence it exerts in public councils and private communities.

During the present century there has grown up a special class of physicians known as Medical Missionaries. Indeed, it is quite natural that this enlightened and cultivated profession should be the source of supply, of men whose lives should be wholly devoted to doing good. The occasion which gave rise to this special class is found in two facts:—1st, A large part of the human family is destitute of a knowledge of Christianity and of rational medicine; and, 2nd, the Christian Church has inaugurated measures on a large scale to supply a knowledge of Christian doctrine to those who are in this destitute condition. In the execution of its plans the Church has found that the practice of medicine by Christian physicians in heathen lands is an aid to its special work, as well as a work of benevolence, worthy of support, aside from its connection with evangelistic effort.

Medical missionaries are supposed to be endowed with all the culture of mind and benevolence of heart, that characterize the profession in general. They

are also expected to have such devotion to the great work of the moral and spiritual elevation of the heathen, as well as the special work of healing, that they will forego the purpose of seeking pecuniary gain by their profession, and will direct all their efforts to the good of those who, without their aid, would continue to suffer calamities such as are expected where there is an entire want of the benefits conferred by scientific medicine.

Medical missionaries therefore willingly submit to a denial of all the comforts of home in a land of civilization and refinement.

They submit to a life of self-denial in living among a people of a strange language, uncongenial customs, and with whom it is impossible to form intimate and elevating associations.

They have to deal with communities, families and individuals amongst whom they find little intelligent appreciation of their profession, and whose ignorance and superstitions are great obstacles in the way of attaining the best results of practice, either medical or surgical.

They live and practise their profession among a people morally degraded and corrupt, and whose immoral practices have brought upon them suffering and disease in forms and degrees shocking to the refined and cultivated mind.

They willingly forego the hope of pecuniary gain, and of professional honors and advancement, which are the ambition of many in the home land.

When a body of educated men, considerable in numbers, leave their native lands, and submit to such self-denials and engage in a life-long work for the accomplishment of a noble and humane object, they become possessed of a moral power which must make an impression, not only on all who are in sympathy with them, but also on the profession to which they belong.

A moment's consideration of the work, which medical missionaries are doing will illustrate the source of that moral power, whose direct and indirect influence is felt in many directions.

The hospitals and dispensaries opened in heathen cities offer to millions of people, free of cost, successful modes of treating diseases which are altogether beyond the skill of their own doctors.

The translation, from the languages of Europe, of the standard works on medical science, is giving to hundreds of millions the benefits of the labors of all the great men of modern times who have made Medicine and Surgery what they are to-day, and all this without labor or cost on their part.

Together with this healing of the body, which is of priceless value to the recipients, they offer to all the people that system of religion which has produced the best men and women, the best husbands and wives, the best citizens and neighbors, and the best governments on the face of the earth. They moreover present and urge the acceptance of that system of religion, which alone opens to men, the way of salvation from sin and its consequences, and secures eternal happiness.

It will be readily admitted that such a work, is one of widespread and far-reaching beneficence, and it is not from a spirit of pride or vain-glory that we assert that the men and women engaged in this work possess a moral power which must be felt, not only by the heathen, but must react on the churches they represent, and in a special manner must it reach, react upon and elevate, the profession of which they form a part.

That the Medical Profession in Europe and America as a body, has not attained to the highest standard of moral excellence, needs only to be stated to be admitted. While a good moral character is one of the requirements for receiving a diploma, yet many of its members fall below that standard in their lives, and a great many could not stand the test of morality as inculcated in the Bible.

This might be considered purely a personal matter which concerned themselves alone, were it not that medical men are members of a profession which is called on to deal with moral questions, the right decision of which requires in the members, not only right practice but correct principles.

It is with much satisfaction, we affirm that the profession has taken the lead in devising, and executing measures, to lessen and restrict disease by removing its causes, when these causes have been physical or resulting from the physical, chemical or vital operations of nature, and an incalculable amount of good has thus been done in preventing disease and prolonging life.

But there are causes of disease which involve moral actions, and the prevention of which requires the correction of immoral habits and practices. Immoral habits and practices are very prolific causes of disease and death, and it is in dealing with these that our profession has shown that defective moral principle, or that low standard of morality which incapacitates it for dealing with these causes of disease. The constant and widespread operation of these causes, and terrible havoc they make of human life and happiness, make their removal the burning questions of the day.

Let us glance at these causes of disease, which involve a direct violation of some law of God, resulting not only in physical disease but also in the corruption of man's higher nature, and at those evil habits which in like manner bring on disease attended with moral degradation.

These causes may be stated thus :—

1st.—The Social Evil, or the unlawful indulgence of the sexual passions.

2nd.—The habitual use of narcotics and stimulants ; the chief of which are opium, alcohol and tobacco.

We will first take the Social Evil and inquire into the relations of the medical profession to this prolific source of disease in its moral aspect, and examine what has been done to remove or eradicate it.

The relations of the medical profession to the Social Evil may be considered in three aspects :—

1st.—In private practice.

2nd.—In medical societies and medical literature.

3rd.—Legal enactments designed to regulate and control it.

In all these aspects the Social Evil is regarded simply as a cause of physical disease, and whether the object be to cure the patient or to limit the spread of the contagion, the manner in which the moral nature of the individual is affected, or the condition of morality in the community, are passed by as matters of secondary importance, or as not coming within the sphere of the physician's duty.

There is no disease which has attracted so much attention as Syphilis. The ablest men have devoted their lives to the study of its nature, phenomena and treatment. Learned societies have discussed the poison, its mode of propagation, and the lesions it produces. Exhaustive treatises with splendid illustrations have been published, and no amount of labor or expense has been spared to place in the hands of the practising physician all he needs to know about the symptoms, course, and cure of the disease. Yet in all that has been said, and written, we find nothing, or almost nothing about the corruption of the moral nature necessarily associated with the disease. Although the cause of the disease, and the way in which the contagion is propagated from person to person is perfectly understood, there is no word from the profession indicating a purpose to remove the cause and thus stamp out the disease.

Nevertheless, physicians, and philanthropists in all civilized countries, are convinced of the necessity of adopting measures which will limit the terrible consequences resulting from the Social Evil, and we call attention to the laws which have been enacted for the purpose, of showing how earnest has been the desire to limit it, and how the moral bearings of the Social Evil, have been entirely ignored by the advocates of these laws, and by the states which have put them into execution.

From the early part of the present century a system of control and regulation, has been in operation on the continent of Europe, under which women are licensed by the state, and subjected to medical inspection, with a view of restraining those who are diseased, from spreading the contagion. Such as are pronounced free from disease by medical inspectors, follow their business under the sanction and protection of law. A single fact will indicate the extent of this legalized system of prostitution. In the city of Vienna about 50,000 women are licensed to ply their vocation.

In the years 1864-66 and 69 this system of state regulation of prostitution, was in a modified form adopted by the British Parliament, and the laws were known as the "Contagious Diseases Acts." These laws were designed, as were

those on the Continent, to limit the spread of contagion by putting in confinement, and under medical treatment, the women who were diseased, while medical certificates, issued in accordance with law, gave permission to those who were pronounced free from disease to follow their business, thus giving the sanction of the state to the violation of God's law, and promising men security from the penalties of that violation.

The responsibility for the introduction of this state "regulation of vice" into the British Empire rested in a measure with the medical profession. Without its support, such measures could not have been adopted by the law-making power of a Protestant Christian nation.

In the subsequent agitation against these obnoxious Acts, which compelled Parliament in 1886 to repeal them, many members of the medical profession took an active and honorable part, but the fact remains, that a majority of the leading men in the profession, were favorable to the continuance of this state regulation of vice, or indifferent to the questions of public and individual morality involved in it.

The views of medical men who supported these Contagious Diseases Acts, and favored their continuance is indicated by the following extracts from the proceedings of the British Medical Association at a meeting held in Dublin, in August 1887—the year after the repeal of the C. D. Acts. We quote from the *British Medical Journal*. "M. J. MOLONY, L.R.C.P.Ed., Medical Officer of Health for Arklow, says :—The Contagious Diseases Acts having been repealed, the question again arose how far the zeal of well-meaning but misguided persons was to be allowed to run riot, and to what extent, if at all, the influence of their (the Medical) profession was to be exercised against it. The Contagious Diseases Acts lessened enormously the amount of venereal diseases among our soldiers and sailors. Since the repeal of the Acts, syphilis had largely increased, and the efficiency of the army and navy had been thereby considerably impaired.

* * * The Lock hospitals under the Acts provided ample accommodation for prostitutes in the several districts. The results were most gratifying. Venereal disease rapidly decreased within those areas, and many hundreds of virtuous wives and innocent children were saved from foul and loathsome disease. * * * The Acts had been favorably reported on by Select Committees and by Royal Commissions, by medical officers of both services, by general practitioners, by clergymen, by Boards of Guardians, and other representative men and public bodies of the districts in which they were in force. Their re-establishment was, he hoped, a question merely of time. Meanwhile it was the duty of governing bodies of general hospitals to throw open their doors for the reception of venereal cases, and it was their duty to advocate by every means in their power, the re-enactment and extension of these valuable and equitable measures."—See *British Med. Journal*, p. 411. August 20th, 1887.

"After a prolonged inquiry by a Select Committee of the House of Commons all that the supporters of the C. D. Acts on that Committee dare to claim was the alleged saving to the army of 5.38 men per 1,000 daily on parade, instead of in hospital, or a total of 269 men on parade in 50,000 troops, this saving (!) being effected at the cost of £110 per an. per man. The alleged saving of life in the army by the C. D. Acts was $3\frac{1}{2}$ men in 50,000, costing between eight and nine thousand pounds per life!"—(*Speech of Dr. Cameron, M.P.*)*

In some of the British Colonies protests were made against the repeal of these Acts. We quote from a memorial of the physicians of Singapore, who say:—"We the undersigned, medical practitioners engaged in practice among the civil population resident within the municipal limits of Singapore, desire to testify from our personal knowledge to the great and increasing injury to the public health of this community that has been inflicted by the abolition of the "Contagious Diseases Ordinance" and the consequent withdrawal of all checks to the spread of venereal diseases."

We quote the above extracts, as an index of the sentiments of the majority of the medical profession in Europe and America, and to show that physical disease is *the* main point considered, while no notice is taken of the moral corruption, and degradation, inseparably connected with propagation of these contagious diseases. The opinion seems to be, that if the state with the assistance of the medical profession can restrict the spread of disease, then let prostitution have the support of the state and the countenance of the profession. In public discussions of Medical Societies, in Medical literature, in the lecture-room and in private practice, there is abundant evidence that the general tone of feeling in the profession is far from what it should be.

*The opponents of the C. D. Acts, however, claim that the data upon which the computation of the above alleged saving of 5.38 per 1,000 of efficiency was based were incomplete, and the conclusion therefore inaccurate. By the insertion of the omitted data the result is, instead of a daily saving of 5.38 per 1,000, a daily loss of 1.47 per 1,000."—(*Vide* memorial to the Government and members of both Houses of Parliament.)

The Government Statistics regarding the army in India condemn the C. D. system with great emphasis. They show that the number of soldiers in India diseased through immorality were—

In 1876	189	per	1,000
77	208	"	"
78	271	"	"
79	234	"	"
80	249	"	"
81	260	"	"
82	265	"	"
83	270	"	"
84	293	"	"
85	342	"	"

Mr. Alfred S. Dyer.

In dealing with an evil of such vast proportions, it becomes scientific men to regard it in all its bearings, and therefore to treat the social evil merely as a cause of physical disease, fails to meet the indications, and any measures which do not deal with it in its moral aspects, must be unscientific, inadequate, and temporizing, and consequently must fail to limit the spread of the physical disease.

We hold therefore that the physician, in order to fulfil his entire duty in this all-important matter, must be a man of high moral principle, guiding his conduct not only in private life, but in his public duties to his patients and to the community by a supreme regard for the law of God, and all his influence must be directed to induce men to conform to that law, which requires purity of heart and of life, as a condition for securing exemption from physical disease, and moral degradation.

It devolves, therefore on the Medical profession to instruct the public, and especially the young, as to the dangers and sufferings which attend the violation of the law of their being, as embodied in the seventh Commandment.

It devolves upon it also to instruct the public as to the loss inflicted on the state, by so many men and women, weakened and broken down by contagious disease, becoming a charge on the state or on benevolent institutions.

It devolves on teachers of Medicine to instil into the minds of their students, an abhorrence of the evil habits of those who have contracted disease by immoral and impure conduct; and to instruct them that it will ever be their solemn duty, to warn all those who come under their influence against the violation of moral law because the instincts of their nature, of which God himself is the Author, are restrained by His most holy law. A generation of physicians trained thus by conscientious and faithful teachers, would elevate our profession to a much higher standard of morality than now exists.

We now turn our attention to the use of Alcoholic liquors as a cause of disease involving moral deterioration. We will not delay to compute the tens of thousands, who year by year, go down to drunkards' graves, or who under the influence of liquor, contract disease or are exposed to accidents which prove fatal. Nor will we repeat the oft-told story of the millions of money wasted by individuals, by communities, and by states, in the thousand ways in which the drink curse calls for the expenditure of money, of labor, and of time. Nor do we need to enumerate the woes which the demon brings into hearts of wives and children, casting a pall over the home, and filling it with misery, and sorrow, when peace and happiness should reign supreme. Nor need we stop to estimate the crime, pauperism and insanity with which it fills our prisons, poor houses and asylums.

To discuss fully the relations of the medical profession to intemperance, would lead us beyond the bounds to which we are restricted. We will only state in a general way what all admit—that many medical men are themselves addicted to the use of spirituous liquors, and not a few to excess.

That only a minority of the profession, are known as constant and positive opponents of the use of spirits, because of the moral evils resulting therefrom. Even as a cause of physical disease, it has not commanded the attention of the profession to such an extent as to lead to the adoption of measures, intended for its correction and removal, and very little attention is given in medical societies, and medical literature, to the moral evils which it inflicts on the human family.

We maintain that the obligations of the medical profession to patients, and to the public, cannot be fully discharged if intemperance is not dealt with in all its bearings. To regard it merely as a cause of physical disease, and overlook or disregard its effects on man's moral and spiritual nature, is to leave out of view the class of results which are infinitely the most important. When the profession rises to the conception, and appreciation of the importance of preventing the moral results, then will it see the necessity of adopting such measures as will absolutely put an end to the physical results. The man who has an adequate conception of the value of a human being, regarded in his physical, moral, intellectual and spiritual capacities and possibilities, must feel the responsibility of surrounding that being, with all the facilities needed to develop his capacities to the highest degree, and of warding off all the influences which would in any degree cause deterioration of any of his faculties. The medical profession in the discharge of its highest duties, must not fall short of dealing thus with the terrible evil of which we are speaking. Let each member of the profession, by example and precept, practice and teach total abstinence, and use all his influence in favor of such legal measures as will prevent the supply of liquor for drinking purposes to the young, and to those who have acquired a morbid appetite by long indulgence. Temporizing and half-way measures will not do, where the health, the lives, the happiness, the usefulness, and the purity of so many millions of human beings are at stake.

Would we not eradicate or stamp out the poisons of small-pox, and of cholera, and of typhoid fever, if we could trace them to their source and isolate them? Would we not punish any, who would even through carelessness, disseminate them? But here is a poison more terrible than those which give rise to occasional epidemics. It is constantly active, and its victims are numbered by tens of thousands. It is visible, tangible, within our reach, and absolutely under control. The state controls its manufacture, and receives fees into its treasury, from those who buy the privilege of dispensing it to its victims.

Small-pox, cholera and typhoid fever are confined in their ravages to the body. No corruption of the victim's morals is associated with these diseases, even though the population be decimated by them. But alcohol not only destroys the body, but corrupts the mind and soul, so that the victims are rendered unfit for the places they should have filled in the family and in society.

If within the whole range of medical science, there is a cause of disease which calls for active effort on the part of physicians more than any other, this is the one. If there can be any means which will put a stop to the ravages of this poison, they should be sought for with all the zeal, which would be called forth in saving men, and women, from fire or from flood. If it is possible for society, or for the state, to adopt any measures which would save the tens of thousands of human lives that are sacrificed to this poison, there is no excuse for an hour's delay. It goes about by day and by night defying everything that is sacred in character, in the family, in Christianity and in law, that its greed of dollars and of hearts and of lives may be satiated.

There is only one method of dealing with this poison. It must be stamped out. All the power there is in Christianity, in morality and in law must be brought to bear upon it, until it is under complete control, as the tiger is when he is in an iron cage.

Assuredly here is a work for the medical profession, and in this holy warfare it should take the lead, and sound no truce until this enemy of mankind has been exterminated, or loaded with chains and fetters that would secure the people from further harm.

The Battle is upon us, it is raging in Europe and America. The Women of Christian England, and Christian America, have sent their recruiting agents around the world, and we cannot escape the conflict if we would. For this mighty warfare with the powers of darkness, we call upon our professional brethren to equip themselves. We ask each member of the profession, to cultivate in his own person the moral characteristics and principles which alone, can fit him to rise to the sublimity of the occasion, and fit him to do well his part in the mighty struggle.

It remains to speak briefly of opium and tobacco as causes of disease associated with moral deterioration. No one will deny that abstinence from the use of these narcotics, will promote the physical and moral well-being of men. Could each one of the millions, addicted to their use, be at once delivered from them, what an immense relief of body and mind would it be to them. Health would be improved, money and time would be saved, and the mind relieved from the tyranny of a craving appetite. This would not be true unless these habits are in some way injurious.

In regard to the use of opium, there is no difference of opinion. Its evil effects are so obvious that all can see them. Tobacco is regarded by some as a harmless luxury, and they are not willing to admit, that it is what many pronounce it—a useless, injurious and degrading habit. Modern investigation and clinical observation have shown, that it is a cause of disease, deranging the nervous system, and through it the functions of vital organs.

Many of those who use it will deny that it is a cause of moral deterioration, but no one who accepts God's word as his standard of morality, and his guide for the elevation and purification of his spiritual nature, can investigate the immediate and remote effects of the noxious weed, and not be convinced that the indulgence is injurious and degrading. In common parlance it is a "bad habit." "Vile" is the term often applied to it. The appetite is not natural. At first the whole nervous system revolts, as shown by the deathly sickness and intense prostration which it produces. The habit is a wasteful, sensual gratification forced upon the system, against the involuntary protests of the organism. Hundreds of millions of dollars are consumed in smoke. To produce, manufacture, sell and use such an article, is assuredly not fulfilling the divine law. Such a man, is not living up to the high and noble purposes of his being.

If such is a correct view of the influence of this habit on man's physical and moral nature, there is but one course open to the conscientious and honest physician. As to the Medical Missionary, professedly working for the highest physical, moral and spiritual good of man, he is pledged to use all means which will aid in this result, and certainly no duty is more obvious and binding than to discourage by precept, and example, any habit which is so injurious to health and to morals as the one we are considering.

It will be said that to the clerical profession, belongs the duty of looking after the moral and spiritual well-being of men, and of guarding them against the moral evils of which we are speaking. This is very true, but the obligation to do good rests upon all men, and duties of one class cannot release another class from their obligations. The very fact that in relieving physical disease, physicians are brought into intimate relations with their patients, gives them special opportunities to bring moral influences to bear upon them, if the physician himself is a man of high moral character. Especially is this the case where the disease is one which has associated with it moral deterioration.

In the minister of religion this basis of moral character is a *sine qua non*. Without it, by common consent he is regarded as disqualified for his office and work. The medical profession, if less sacred than the ministerial, is so in only a small degree. When the physician rises to the conception of his relations to the immortal, as well as to the physical well-being of his patients, and his obligations to leave no measures untried, to ward off from their souls the terrible evils we have been considering, then will the sacredness of his calling be less in no degree, than that of his clerical brother.

The Medical Missionary, as the term implies, devotes his efforts to the cure of moral and spiritual maladies, and the relief of bodily disease is employed as a means to reach more effectually the spiritual nature, where the unspeakably more important disease—sin—is working its ravages, and leading to spiritual death. He is, in common with many of his professional brethren in Europe and America,

a professing Christian, and pledged to a life of moral purity, uprightness and integrity. While seeking the moral and spiritual welfare of the heathen, to whom he is sent, he naturally seeks the correction and removal of the moral evils, which bring so much physical suffering, and death upon the people, and his highest motive in doing this, is that these evils are in direct violation of the laws, which the divine author of our being has established for the regulation, development and well-being of the physical, moral and spiritual natures of His creatures.

Medical missionaries at home and abroad practice and teach the morality of the Bible. Their personal and professional influence, is directed to the inculcation of the same, on all with whom they come in contact, and in the prophylaxis of disease, they must necessarily regard as of supreme importance, those causes which involve moral corruption, as well as physical disorder and degeneration.

It is to this high standard of professional and personal character that we would wish every physician to attain. We desire that as a body, the medical profession should always and everywhere be, on the side of purity and morality on all the questions, which involve the moral well-being of the race. We desire it to wield, the mighty power which it possesses, for the removal of the evils which bring disease, and death in their train, and for the protection of the people from their propagation.

An American divine, in addressing medical students many years ago, used the following language :—" Much has been done by the medical profession in all ages for the amelioration of the evils of the world. Its mission was merciful from the first, but in modern times, its true mission has been better understood and appreciated, and we have noble earnestness of the great work it is destined to accomplish, and the high place to be assigned to it in the final struggle for the world's redemption."

After speaking of the great benefits conferred upon all classes of the suffering by hospitals, asylums and retreats, and glancing at the results of medical missionary work (*at that time very much less than now*) among heathen nations, the same divine continues :—" Medical men are turning their attention more and more to the grand movements of our age, and God will put still higher honor on that profession, which has already done so much, and is yet to share so largely in all remedial efforts for man. The future travails with great things; science is to win new triumphs; new forces are to be applied; new remedies are to be discovered; nature is to be more severely challenged; all undiscovered secrets are to be yielded, and the domain of human knowledge extended; and before scientific research, darkness itself is to flee away. I rejoice in all. I cheer the toilers in these fields and urge alway to deeper and more thorough investigation, but I rejoice the more in that thorough, and scriptural, and noble work, which medical science is yet to do in this world for Christ. It is this which makes it

the *sacred inheritance of the Church*; this that clothes it with such dignity, and gives it so high a place in the affections of all thoughtful Christian men; and this that will give to it its final glory and highest eternal reward."—*Sacredness of the Medical Profession*, by Rev. E. R. BEADLE, Philadelphia, 1865, p. xxiii.

The past history of our world is dark and bloody, but a new era has dawned upon us. The Bible, the source of all truth, is becoming the light of the world. Education, long restricted to the few, is becoming universal. Religion, extending its benign influences to all countries and all classes, proclaims peace and goodwill to men. The law of love is the power which is removing the antagonisms between nations, classes, and individuals, and brings all into one brotherhood and one kingdom whose supreme head is the Saviour of the World.

Shall our profession do its part in this great work of renovating the world? Our Association, and this meeting here to-day, answer this question. We represent a movement which had its origin fifty years ago, and which in recent years has been progressing with ever-increasing volume and force. Medical missionary societies are multiplying at home, and the numbers of medical men, consecrated to the service of the Gospel, are increasing year by year. A few years ago we could not have held such a meeting as this.

The future is full of hope, and we look forward with confident expectation to the time, when the medical profession shall be imbued with the Spirit of the Master, and when its great societies and schools, shall be permeated with the Spirit of Christianity, and when the moral and spiritual elevation of man, shall be regarded as objects worthy of its highest efforts, no less than the prevention and cure of physical disease. By the blessing of God, the position and work of medical missionaries at home and abroad, are aiding in the accomplishment of this much-to-be-desired result.

Let us, therefore, be faithful in the discharge of our duties as Christian physicians, ministering both to the spiritual and bodily needs of our patients; and ever pray earnestly, that our profession in all lands may, by the grace of God, appreciate the responsibilities attached to its relations to men, and become more and more a power in the spiritual as well as physical regeneration of our fallen race.

PAPER.

2.—By The Rev. A. W. DOUTHWAITE, M.D., F.R.G.S.

The Use of Native Drugs by Medical Missionaries.

Now that China is rapidly opening to the gospel, and the churches are beginning to realize the value of medical work as an evangelizing agency, we may expect that ere long hospitals and dispensaries will be established in all the principal mission centres. Already there are medical missionaries residing in such remote parts of the country as Kwe-yang, the capital of Kwe-chao, Chen-tu and Chung-king in Sz-chwen, Han-chung in Shen-si, T'ai-yuen and Kwe-hwa in Shan-si, and the demand for medical missionaries increases with the spread of general missionary operations.

One great hindrance to the establishment of medical missions in the interior is the difficulty—sometimes amounting to impossibility—of transit of the necessary drugs and appliances to those stations far removed from the great waterways, and hence the necessity for finding out, and making use of such native and imported drugs as can be obtained in the country, and considering the possibility of manufacturing out of the crude material at hand, such compounds as we are accustomed to use in the treatment of our patients.

Wherever it is possible to procure foreign drugs, it is decidedly better to do so, for with few exceptions they are cheaper and better than those obtainable from native sources. In England, we are protected by law against adulteration of drugs, but in China we have no such safeguard, and the native medicine-sellers take full advantage of the privilege they enjoy, of adulterating their drugs to the fullest possible extent, and of substituting at will any article for the one ordered.

Moreover, the medical missionary should not be unnecessarily hampered by having to manufacture his own drugs, but should be free to devote all his time to his proper work of healing the sick, and preaching the gospel. But in some cases it will be absolutely necessary to make use almost exclusively of the Chinese materia medica, and whoever may have the honour of commencing work in such important places as the great commercial centres of Kan-suh or Yün-nan, must needs have all his wits about him, and be capable of recognizing and using such substances as can be obtained on the spot.

Many native drugs are too impure or of too uncertain composition to be of much use to the physician, but some of them can be purified, and nearly all the apparatus required for that purpose can be made in China. For instance, ARSENIC TRIOXIDE is readily prepared by subliming the crude mineral (*Sing shih* 信石), and condensing the fumes on the inside of a basin, kept cool by

means of ice, or a cloth wrung out of cold water. For the manufacture of SUBLIMED SULPHUR, all that is required is an iron pan in which to burn the native sulphur, a tube to convey the fumes to a large wooden box, on the sides of which the flowery crystals will be deposited.

Camphor may be purified by means of the same apparatus, but of course, it should be slowly evaporated, not burned. An arrangement similar to this may be used for freeing native Calomel (*Ch'ing jen* 輕粉) from the earthy substances with which it is usually adulterated, but a bottle, or a tin box, would be a more suitable condenser than the wooden box used for coarser substances. Soluble crystals, such as PERCHLORIDE OF MERCURY (*Peh chiang tan* 白降丹) or SULPHATE OF IRON (*T'sing jin* 青礬) can be obtained pure by solution, filtration and re-crystallization.

Good rectified SPIRITS OF WINE, sp. gr. 838, may be made from native whiskey, by mixing with half its weight of freshly-burned lime, and distilling at a low temperature. The stills used by the Chinese are very simple contrivances, but I have found them in every respect as useful as the more expensive foreign apparatus for distilling large quantities of spirits or other fluids.

When I was asked to write on this subject, I purposed giving the results of my own researches and experience during the first six years of my missionary life, when I was compelled by circumstances to depend chiefly on the native market for supplies, but it is now ten years since I was under that necessity, and consequently, I am somewhat out of touch with the subject.

Now, therefore, instead of drawing further from my own notes on past experiments I will quote freely from letters which I have recently received from Dr. WILSON of Han-chung, in the province of Shen-si, where for several years he has, in addition to his medical work, carried on a series of investigations, with a view, to discovering how far it is possible to render himself independent of foreign drugs.

Dr. WILSON has succeeded in manufacturing Nordhausen Sulphuric Acid, by distilling the native persulphate of iron, and, of course, once having Sulphuric Acid, it is easy to make Nitric and Hydrochloric Acids, and many other chemicals, as the following experiment will show.

COMPOUND SYRUP OF THE PHOSPHATES, or "*Chemical food*." The ingredients of this useful medicine are the Phosphates of Iron, Lime and Soda, Phosphoric Acid, Syrup and colouring matter, and to produce these from native materials, Dr. WILSON proceeds as follows. I quote his words *in extenso* :—

"1.—PHOSPHATE OF IRON.—They have not, and to produce it you require Sulphate of Iron, Phosphate of Soda and Acetate of Soda.

The first they have, the latter two they have not, so to produce Phosphate of Soda you require Phosphate of Lime, Carbonate of Soda and Sulphuric

Acid. The first two they have, and the Sulphuric Acid can be obtained by the Nordhausen process of distilling from Persulphate of Iron, which they have.

To recapitulate, you start with native Sulphate of Iron, and manufacture Sulphuric Acid; from this, and calcined bones, you obtain Superphosphate of Lime; from this and Carbonate of Soda you obtain Phosphate of Soda, and from this, and Sulphate of Iron, you obtain your first ingredient, *Phosphate of Iron*.

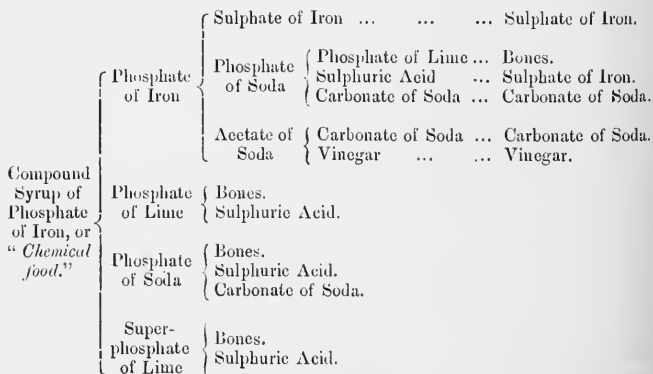
"2.—PHOSPHATE OF LIME.—This you have in the calcined bone dust, or you obtain it as a bye-product as Subphosphate of Lime, when acting on the solution of Superphosphate of Lime with Carbonate of Soda, in the production of—

"3.—PHOSPHATE OF SODA, so that by one process you obtain two of your ingredients—Phosphates of Lime and Soda.

"4.—PHOSPHORIC ACID.—The chief value of this is that it renders the phosphates of Iron and Lime soluble, in addition to its value as a compound of Phosphorus. These two ends are likewise obtained, if you substitute for Phosphoric Acid a Solution of Superphosphate of Lime, and this is easily obtained by acting on calcined bones with Sulphuric Acid.

The final result is, that from purely native materials, and all of the cheapest description, you may manufacture a valuable medicine, the proximal ingredients of which, are such that not one of them is known to the Chinese chemists.

A glance at the subjoined diagram makes this clear—



The essential elements in the above formula are (1) Bones, (2) Sulphate of Iron, (3) Carbonate of Soda, (4) Vinegar.

Dr. WILSON has succeeded in making Spiritus Etheris Nitrosi and Sulphuric Ether from native material, and suggests the following process for the manufacture of Chloroform :—

“ From native Sulphate of Iron you obtain Sulphuric Acid ;

“ From this and Salt you obtain Hydrochloric Acid ;

“ From this and native Oxide of Manganese you obtain Chlorine ;

“ From this and native Lime you obtain Chloride of Lime, and this distilled with native spirit, gives you CHLOROFORM.

It is not generally known that Black Oxide of Manganese, is obtainable in China, but Dr. WILSON discovered that it is used by the painters in Shen-si in the preparation of drying-oils, just as it is used in the West,

Few drugs are more in request in China than Oxide of Zinc, yet, so far as I am aware, the natives do not possess it. The Peh-yuen-tan (白鉛丹), used by native painters, is an impure Carbonate of Zinc, from which first the metal and finally the Oxide can be obtained by the following process :—

First roast the Carbonate, to drive off the water and free Carbon Dioxide contained in it ; then mix it with broken Charecoal, place it in a strong earthen retort, and distil at a red heat. The fumes should be conveyed through a pipe into cold water, where the volatilized metal will be condensed, while the Carbon Monoxide will escape. The metal should then be burned in a retort to which the air has free access, and the Oxide condensed in a large wooden box, such as I have recommended for purifying sulphur, etc. A simpler method is to heat the Carbonate to redness, taking care not to volatilize the metal, but of course the resulting Oxide will be mixed with earthy impurities. The simplest plan of all, however, is that adopted by Dr. WILSON, who buys from the native merchants the zinc linings of foreign packing cases, by roasting which, he obtains by one process a pure Oxide. Wherever foreign matches are used—and there are few cities in China where they are not—zinc linings are procurable at a very low price, for the Chinese can make no use of them.

Dr. WILSON has demonstrated the possibility of making Galvaic Batteries, Electric Bells, Electric Telegraph, etc., etc., entirely of native materials, put together by native workmen. As the Chinese have no Acids, of sufficient strength for electrical purposes, he used Caustic Potash, made by boiling together Carbonate of Potash and Caustic Lime—both of which they have—and found it to work well.

One might fill a volume with suggestions and the results of one's experience, but the above is sufficient to show, what may be accomplished by a man of ready resource, when compelled by necessity, “the mother of invention,” to manufacture his own tools and seek his supplies in regions far remote from the foreign market.

Dr. WILSON is not an ordinary man, and in Chemistry, he is far ahead of the majority of his brethren, so we must look to him and others of like ability to show us what can be done.

I have made these quotations from Dr. WILSON's letter without his permission, but I hope he will pardon the liberty I have taken, as the information he has given us will be of inestimable value to our Association.

DISCUSSION.

The PRESIDENT said that Dr. Wilson is mistaken in saying that the existence of native Black Oxide of Manganese was, until lately, unknown. In the Tai Ping Rebellion, he (the President) being then in private practice in Shanghai, the Chinese Government applied to him for help in preparing percussion caps, the supply of which was running out. After talking the matter over with an old, and very intelligent Chinese druggist in Shanghai, he procured a quantity of Black Oxide of Manganese. He was thus able to supply them, with the ingredients necessary, for the production of their caps, and, as a matter of fact, the Government troops were for the future supplied from purely native sources. Dr. HUNTER asked if the Sulphate of Copper, sold in the shops was a native product or not. Dr. THOMPSON said it was. Dr. PORTER referred to the work being done in Japan by a young man from Cornell University, who was giving his time to the investigation of the question—how far native-grown drugs can be utilised in the preparation of foreign medicine. He suggested that some similar investigation should be undertaken for China, and, with that object in view, proposed the formation of a Pharmaceutical Society, to undertake this special department of work. Dr. WATSON spoke of having recently come across an extract of malt of native production, which can be obtained on the street for about 30 big cash per lb. He promised to send a sample to members, and a communication to the Journal on the details of its production. Dr. MACKLIN subsequently said, that this malt extract was the common candy sold on the streets. The preparation of Sulphate of Soda, Tr. of Nux Vomica and Plaster of Paris from native sources were all touched on. Dr. PORTER having referred to the existence of native Liquorice, Rhubarb, etc., asked a question as to whether the ordinary Spanish fly was found in China, and quoted from Dr. Porter Smith's *China Materia Medica* to the effect, that it is not known in China. He (Dr. PORTER) had seen it in the North-West of the Province of Chihli, and Dr. HODGE said he had been informed that it was common in Yunnan. Dr. TAYLOR, referring to an idea common among the natives, that the native preparation of the fly is stronger than the foreign, said the natives explained it by the fact that the heads of the flies were always picked off first. The PRESIDENT then made some remarks on a new, and little known, styptic,

viz., a fern called the Pangar Djambi, or Golden Lion Hair 金毛獅子. The stalk of this fern is covered with a soft down of fine hair of golden colour. It is important to get a *good* specimen—one bright, shiny, clear and clean. A plug of this placed in any cavity, will almost always stop oozing and hæmorrhage, short of arterial bleeding, which can be arrested by ligature. The peculiarity of this styptic is that it forms a hard coagulum on the surface of the down; the action is entirely on the surface; if the down be cut open the centre of it will be found dry and clean; it has this advantage over ordinary styptic plugs, that it seems *not* to favour decomposing clots, as is ordinarily the case. English and American journals contain no reference to this subject, but the French and German ones have gone into the matter pretty exhaustively, especially in OSCAR LEIBRICH'S *Therapeutische Monatshefte*, in an article by Noltenius. It is known, and used, by some of the Chinese. Further, one stripping of the stem does not exhaust the plant; that if the stem is sprayed with ordinary samshu and hung up in a damp place it will, in a little while, develop a fresh crop of down, and that this process can be repeated several times.

P A P E R .

3.—By W. H. PARK, M.D.

Preaching to Dispensary Patients.

The object of the many mission hospitals and dispensaries in China, is the spread of the Gospel among this people. This object should never be lost sight of for a moment.

Hospitals and dispensaries, aid in this work in one way, by showing the people the practical side of Christianity, in another way by softening the hearts of the people towards foreigners, thus rendering them more tolerant of the missionary and of the Gospel he has come to proclaim. If no further good were done, these in themselves would be incentives enough for the establishment and maintenance of mission hospitals; but further good can be and is done.

The hospitals and dispensaries, in addition to preparing the way, can be made highly successful evangelical agencies. Great numbers are brought together in the wards of the hospitals, and in the dispensary chapels, under circumstances most favorable for the direct dissemination of Gospel truths. The importance of this evangelical side of medical missions is known and recognized by all. Take up any mission hospital report and see what stress is laid upon it.

Preaching to the dispensary patients, can never rank as an evangelizing agency, with the effort made in this direction among the in-patients, but at the same time it has its importance and must not be neglected. If patients simply

come to the dispensaries, get their medicines and go away without hearing anything of the Gospel message, even though they should be cured of frightful maladies, as they often are, they still will not have gained the full measure of benefit, it is in the province of a *Christian* benevolent institution to bestow. To make it complete they should receive healing for the soul, as well as for the body, or at least hear that such healing can be obtained.

In point of numbers, the dispensary or out-patients go far beyond any other class of patients, reached by the missionary physician. All mission hospitals have their dispensaries, and in some places there are dispensaries without hospitals. Scarcely any dispensary has less than two or three thousand patients a year. Many report four, six and eight thousand, while some go as high as ten, fifteen or even twenty thousand.

At the least estimate over one hundred thousand different individuals, are reached by the dispensaries in China every year, and the number is constantly increasing.

If we count daily sittings in the dispensary chapels, including all, return as well as first-visit patients and their friends, the number will reach into the neighbourhood of two hundred thousand.

The good order maintained in the dispensary chapels, adds to the favorable opportunity they offer for preaching the Gospel. Self-interest, if nothing more, leads the patients to keep quiet and give a respectful hearing to the preacher.

In our dispensary chapel in Soochow, we find if a patient becomes restless, noisy or disrespectful during preaching, he is at once reprimanded by the others and told to be quiet. I have often noted the inspiration the good order seems to afford the preacher. The preaching to our dispensary patients has been mostly done by our chaplain, and often with his face all aglow he tells of the happiness he feels in his heart, and of the good it does him to preach to such an attentive congregation.

Another consideration worth mentioning is the character of the dispensary patients,—principally the poor, and always the sick and the afflicted, just the people who stand most in need of the consolation of the Gospel. When John, from prison, sent two of his disciples to Jesus, to ask, "Art thou he that should come, or do we look for another?" Jesus answered and said unto them, "Go and shew John again those things which we do hear and see: The blind receive their sight, and the lame walk, the lepers are cleansed, and the deaf hear, the dead are raised up, and the poor have the Gospel preached to them."

What if the results are not such as we would like? Need we hesitate when we have such words as these from our Master Himself? What were the results in Christ's day? How many of the multitudes who listened to the wonderful words that fell from His lips, believed and were saved? We cannot heal, as He healed, nor preach as He preached, but He has told us after all that those

who believe in Him shall do greater works than He did, referring, as I believe, to the souls that are to be saved through the efforts of those who believe on Him. I cannot believe, although the visible results thus far have been so meagre, that all the seed sown in the dispensary chapels throughout China, are snatched away by the wicked one, or fall among thorns or upon stony ground. Let us pray daily that many of them may fall into good ground and bring forth fruit some thirty, some sixty and some an hundred fold.

We come next to the question as to who shall do the preaching to the dispensary patients. If the doctor has the talent and the time for it, it is better that he do it. He is familiar with the vocabulary of diseases and description of diseases, and by the use of these words can appeal most forcibly to the sympathies of sick people. He also commands the respect of the patients, and in the case of return patients who have been benefitted, the gratitude as well.

But so far as the talent for it is concerned, it is a question that every one after prayerful consideration must decide for himself. We are not all preachers. "Now ye are the body of Christ and members in particular. And God hath set some in the church, first apostles, secondarily prophets, thirdly teachers, after that miracles, then gifts of healing, helps, governments, diversities of tongues." If the doctor is not a teacher he can desire earnestly and strive for the gift of healing and still be coveting one of the "best gifts."

As to the question of time, no one should undertake preaching to the dispensary patients unless he has the time for it. Not the time for the delivery of the sermon alone, but the time to prepare for it as well. The doctor may be able to *make* the time for the preparation, for it is said no matter how busy we may be we can always find time to do whatever we have set our hearts upon and determined to do, but can he command the time for the preaching of the sermon? Preaching to the dispensary patients must be done at a certain hour—the hour just before the clinic, sooner than that is too early for the congregation, and after the clinic begins is too late. If an urgent call comes just at that hour, being a physician his first duty is to his patient. Now preaching should never be a matter of secondary importance, and yet in the case just supposed it must be so, the preaching must give way and the doctor see his patient. This may not occur very often, and yet, on the other hand, it may happen so frequently as to seriously cripple the efficiency of the preaching service. It is something that has to be settled in every case by actual experience.

That the preaching must never be a matter of secondary importance is also a serious drawback in having it done by a clerical brother with his hands full of other missionary work. If he has his schools, his itinerant work, his street chapels, his translating, his giving and receiving of pastoral visits, etc., etc., it is impossible for him to give preaching to the dispensary patients, the attention that its importance demands.

My ideal is a hospital chaplain, either native or foreign. A man appointed specially for the work. A man who shall make a specialty of the evangelical work, just as the doctor makes a specialty of the medical work. This need not necessarily be his only calling, but let it be his first and most important one. With him, evangelic work among the dispensary patients, should not begin and end with preaching. He should have time to be on hand before preaching and meet the patients as they come; get on friendly terms with them, and find out where they live, with a view to visiting them some time in their own homes. This personal interest and visiting, has proved highly beneficial among the in-patients, why should it not be practised as far as possible among the out-patients as well. He should also have time to remain after preaching, to distribute books and tracts, and to pray with any one who might have become interested. Let him be such an one as is described by Dr. LAMBETH, in the first report of the Soochow Hospital:—"He should be a middle-aged man, of some weight of character, dignified, but cheerful in disposition, and of gentle manner; have had a large experience of men in all classes of society, be possessed of tact, and with a keen sense of the 'eternal fitness of things' as to *what* he is to talk about, *how long* to talk, *when* and *when not*. Of course he should be intelligent and above all thoroughly consecrated to his work. We do not mean to set up a modern Solomon or an apostle Paul as a *sine quâ non*, but like the former, a Christian worker in a Hospital should know, 'there is a time to speak and a time to keep silent,' and should be with the latter 'all things to all men.' We think the man who is most highly possessed of the above qualities is best qualified for such service, and we would *emphasize* the position and its duties, as of vital importance to the success of evangelistic effort, in behalf of the inmates of our Hospital Wards, and patients in our Dispensary Chapels."

DISCUSSION.

Dr. ROBERTS of Tientsin, urged that every medical missionary should open the day's work with a few words of exhortation and prayer. He had found universally a spirit of reverence on the part of the patients, and had never met with any objection or difficulty. It was only rational that the *Medical Missionary* should commence his work by invoking the aid of the God he believed in. Dr. DOUTHWAITE found it of great advantage to have one or more lady missionaries present in the waiting-hall, who get acquainted with the women and follow them to their own homes. Dr. WOODHULL impressed upon her students the necessity of individual influence. One of her students is set apart to talk to her patients, but she found it difficult herself to say anything, as they were so anxious, to at once tell all about their diseases. This was confirmed by Mrs. Dr. WATSON, but she pointed out that women were very grateful for

sympathy, and through this open door a way might often be found for the Gospel. Dr. MARY FULTON questions the patients in her consulting-room, upon what they have heard in the waiting-hall, and if any seem to have been particularly impressed, talks and prays with them. Drs. LYALL & HODGE asked how far it was wise to compel patients to hear the Gospel. The latter said he very much objected to any such idea as so much gospel before any medicine is given. Our work stands on a basis of pure philanthropy, and when the Chinaman begins to find out, that we are doing our work chiefly from proselytising motives, and not from a pure desire to do them good, they will not be so anxious to come. Without reflecting on any of his brethren who felt able to do so much, he could only say he had not found it possible to see such a large number of patients daily as some seemed to, and at the same time attend to them properly. He concentrated his religious efforts upon his in-patients, and hoped to do so still more efficiently. Dr. PORTER deprecated so much preaching, thought we preached too much; preferred several helpers to enter into conversation with the patients and draw them out in question and answer. This kind of work went on during the whole time that he dispensed. Dr. WARSON thought people of good position should not be expected to sit down in the ordinary chapel, but should be received in a guest-room. He evangelises the out-patients chiefly conversationally, fits his waiting-room up as a guest-room, so as to take away the chapel feeling.

On the motion of Dr. KERR, seconded by Dr. JELLISON, it was decided to continue the discussion as first order of the day to-morrow.

The Rev. Professor THWING pronounced the benediction.

(Monday Afternoon, May 19th, 3 o'clock.)

The President, H. W. BOONE, M.D., in the Chair.

Secretary, The Rev. S. R. HODGE, M.R.C.S., L.R.C.P. (Lon.)

The Rev. W. R. LAMBETH of Japan offered prayer.

The PRESIDENT, vacating the chair to Dr. KERR, then delivered the address.

PRESIDENT'S ADDRESS.

By Doctor H. W. BOONE.

Medical Education for the Chinese.

In the year 1834, the Rev. PETER PARKER, M.D., of the American Board of Missions, arrived at Canton, as the first regularly-appointed missionary

to the Chinese. The great work accomplished by Dr. PARKER is matter of history—known to all the world. In 1839, BENJ. HOBSON, M.R.C.S., of the London Missionary Society, arrived at Macao. As the first medical book-maker for China, he was the author of a series of medical text-books which became very popular, and have been sold extensively over China and Japan. Shanghai foreign merchants subscribed \$2,000 to aid their publication, and the Canton Viceroy republished the first of the series soon after it was brought out. In 1854, Dr. JOHN G. KERR, of the American Presbyterian Mission, arrived at Canton. For over 30 years he has been busily engaged, more than 500,000 out-patients have passed under his care, more than 21,000 in-patients. He has performed the operations of Lithotomy and Lithotripsy, many hundred times. More than 27 volumes in the form of Chinese medical text-books have been issued by Dr. KERR. Dr. DUDGEON, of the London Mission, Dr. OSGOOD, and others have laboured in this work of giving the Chinese a reliable medical literature.

The Medical Missionary Association of China, formed in the year 1887, conferred honor on itself by electing Dr. KERR as its first President.

One hundred and ninety-six medical missionaries have lived among the Chinese and have laboured for them since the year 1834. For more than 50 years, earnest, intelligent men and women, some of them of a high order of ability, have devoted their health and strength and the best years of their lives to this work of giving relief to the sick and suffering among this vast nation, striving, on the one hand, to heal the bodily illnesses of their patients, and, on the other, to lead them to a higher standard of life and action, the life of the Christian servant of God. Now that more than half a century has been spent in faithful labor, it is well to pause and take stock of the work. What has been done in the past? What is the promise for the future? The medical missionary has been the pioneer. Many a time it was his work alone which would be tolerated by a hostile people. The daily spectacle before their eyes of a man laboring to heal the sick, to relieve suffering, to bring hope and happiness into the family where the fell destroyer was claiming his prey. Doing all this with no object of gain, and proclaiming to all, that he was the representative of a religion which told its disciples to imitate their Divine Master, the man of whom it was said, "He went about doing good." This example has been before the Chinese in many parts of the Empire for more than half a century. They have learned that the Christian religion is the religion of love, that it prompts its followers to desire and to labor for the good of their fellow-men. The medical missionary has paved the way for Christian work among the Chinese. Millions of the Chinese have been cured by his skill. The medical education given to natives has enabled them to aid their fellow-countrymen, and the text-books published in Chinese have helped to give

some light in the treatment of disease. It may be worth our while to try and see what the Chinese know about medicine. They have no proper methods of examining the sick. Auscultation, Percussion, the use of the Thermometer, and all the varied appliances at our command for interrogating the patient are unknown to them. Their drugs are crude, either inert or drastic. They probe the joints and the viscera with needles, cold or red hot, and even run them into the spinal cord. They have no knowledge of obstetrics, no anatomical or surgical knowledge. A fractured bone is left to get well as best it may. A dislocated joint is let alone. Tumors grow until the patient is destroyed, strangulated hernia is unrelieved, patients with stricture die without any attempt being made to help them. Diseases of the eye run riot and end in total blindness. No attempt is made to treat the insane. Saddest of all, the little children suffer and linger and die from preventable or curable disease. Hygiene is unknown. Why prolong the mournful record. Here is a nation of nearly 300 millions that suffer from every ill that flesh is heir to, with no relief and no prospect of relief except that which the medical missionary has to offer. In the past, medical missionaries have striven nobly to heal the sick, to teach the heathen. But what can 50 or 60 men do to relieve nearly 300 millions? The mass is too great to be reached by their individual efforts. Medical missionaries have taught pupils and sent them out to help in the work. A few Chinese youths have gone to foreign lands, obtained a medical education, and returned to practise in their own country. Much has been done. Let us see what has been accomplished. The following is a very imperfect list of the works written, or translated into Chinese.

<i>Natural Philosophy and</i>		<i>On Fever</i>	KERR.
<i>Chemistry</i>	A. P. MARTIN.	<i>On Surgery</i>	„
<i>Elements of Chemistry</i> ..	KERR.	<i>Physiology</i>	„
<i>Diagnosis</i>	„	<i>Physiological</i> , (coloured	
<i>Anatomy, Gray's</i> ...	OSGOOD & WHITNEY.	cuts and text).....	„
<i>Chinese Materia Medica</i>	SMITH.	<i>Chemistry, Roscoe's</i>	FRYER.
<i>Western Education</i>	FABER.	<i>Light</i> (1 vol.) <i>Optics</i> .	
<i>Bandaging</i>	KERR.	(1 vol.).....	„
<i>Skin Diseases</i>	„	<i>Manual of Electricity</i> ...	ALLEN.
<i>Syphilis</i>	„	<i>Physics</i>	FRYER.
<i>Eye Diseases</i>	„	<i>Stellway on Eye</i>	„
<i>On Inflammatory Di-</i>		<i>Physician's Vade Me-</i>	
<i>seases</i>	„	cum	SUVOONG.
<i>Principles and Practice</i>		<i>Resuscitation of the</i>	
<i>of Medicine</i>	„	<i>Apparently Drowned</i>	MACGOWAN.
<i>Materia Medica</i>	„	<i>Wall Chart, Botany</i> ...	FRYER.

<i>Wall Chart, Acoustics.</i> FRYER.	<i>Chemistry Principles,</i>
<i>Sound (1 vol.) Light</i>	<i>Inorganic</i> FRYER.
(1 vol.)..... „	<i>Chemistry, Practical,</i>
<i>Popular Medical Treatise</i> „	<i>Bloxam</i> „
<i>Diseases of China</i> DUDGEON.	<i>Chemistry Treatise,</i>
<i>Diseases of Infants</i>	<i>Bloxam</i> „
<i>and Children</i> E. SMITH.	<i>Handbook of Medicine.</i> „
<i>Handbook for Anat. and</i>	<i>Materia Medica, Inor-</i>
<i>Physiology Charts</i> ... DOUTHWAITE.	<i>ganic</i> „
<i>Outline of Chemistry</i> ... JOHNSON.	<i>Materia Medica, Or-</i>
<i>Hobson's Medical works,</i>	<i>ganic</i> „
(5 volumes).	<i>Spectrum Analysis</i> WYLIE.
<i>Chemistry</i> A. BILLEQUIN.	<i>Natural Philosophy</i> MATEER.
<i>Chemistry Analysis,</i>	<i>Wall Chart, Anatomy,</i>
<i>Fresenius</i> „	<i>Physiology</i> FRYER.
<i>Botany</i> WILLIAMSON.	<i>Wall Chart, Electricity</i> „
<i>Human Anatomy, Atlas</i> DUDGEON.	<i>Chemical Vocabulary</i> ... „
	<i>Electricity</i> „

In addition to these, the translation of works on the higher branches of learning, by our clinical brethren, has furnished a good supply of books, all of which are of value to the young medical man.

Most of this work has been done by the Medical Missionaries. In this, as in other fields, the honored name of FRYER stands among the foremost. Though not a medical man, he has translated some of the most valuable works we have for the use of the student of medicine. From this list of works we can obtain a fair set of text-books to put into the hands of our medical pupils. During the greater part of the last half-century, medical instruction has (generally) been confined to what one man working by himself could impart to his small class. Much has been done in this way. Dr. KERR of Canton, in his long and faithful service has had more than 100 pupils. *Number of medical students now under training.*—There are nearly 150 Chinese medical pupils now studying medicine under Foreign medical men. All but one or two of these medical men are medical missionaries. All honor to the labors of such men as MAXSON and MYERS. Though not Medical Missionaries their work is of the best kind and will help us in our efforts to raise the standard of medical teaching for the Chinese. My time will not permit me to give an account of all the work and of the workers. Let us glance over the vast field, in Manchuria, in Korea, in Peking, and all through the Empire to Canton in the south, medical missionaries are at work teaching and training medical pupils. The lady doctors have begun the good work of training women doctors and nurses. Of

late the opinion has been gaining ground that one or two well equipped and well located schools would do better work and turn out better doctors than are furnished by the present system of individuals, teaching a few pupil without the equipments needed to give a full education in medicine. The schools proposed could, each of them, have a fairly good corps of teachers, they could be better equipped with all the appliances for teaching, and they could create the college feeling amongst their students, which does so much for the scholars. The Chinese have the highest possible respect for education; they have their grand Governmental examinations at which honors are obtained. The Government have just introduced a list of western studies into the curriculum of studies for obtaining a degree. They would be quick to recognize and to appreciate the benefits which good schools of medical learning would confer upon the students and upon the public. While such medical schools would supply a want and train a large body of students, there are parts of China to which they would not reach, at least for the present. What is said here would not apply to these. Individual efforts would find their proper sphere of labor in such places and would supply the local need. Their students could take a final course in the larger schools, if they wished to pursue farther studies.

Methods of Instruction.—Dissection of the human body cannot be carried on in China. We have to dissect animals and learn by comparative anatomy. We can obtain, from London, wet specimens which are admirably prepared and will be of great value to our students. Anatomical plates and models will be of service, and the proper use of our ample field for surgical operations can help to train the student. By assisting at surgical operations the student can be taught many points of surgical anatomy. It has been well said by Dr. KERR, late President of the Medical Missionary Association of China, that, "The education of physicians and surgeons for the people of this great Empire is a subject of the utmost importance and one which may well engage the attention of the medical profession of the world." "By our translations and our medical teaching we are extending to a large portion of the human family the benefits of the labors of all who have and who still are advancing medical science and practice." To this I may add, that when this mighty nation takes her proper place in the medical world, the researches of her medical men will go far to repay all the care bestowed on her by the medical profession. The rich and unexplored field of diseases in China will amply reward the labor of those who examine it fully. As an humble representative of modern medicine in China, I hope that the hand of fellowship will be extended by the whole medical profession throughout the world to the workers in China, who are labouring to advance the cause of medicine in that great Empire. The International Medical Congresses which hold their meetings every few years are the proof of the common feeling which binds us all into one great band of workers for the common good. We have been working in China

for more than half a century, our numbers and our influence for good are steadily increasing. By our late action in uniting to form a Medical Society for all China, with branches in the various provinces, the publication of a Medical Journal, and the free discussion of our methods of labor, we are on the right road to make our future work better and better. We would ask the Medical Profession throughout the world to help us; to encourage Christian young men of exceptional ability to go out and work as teachers and practitioners in the mission field, for life if they will, for 10 years if they do not see their way to devoting a lifetime. New fields for usefulness and for observation would repay them for the time spent away from home. We would ask our friends at home to take a personal interest in our work and to keep themselves informed about it; to get some of their wealthy and influential friends and patients to help us by grants of money. We need medical schools, better equipped in men and money and appliances for work. We would ask every medical author to give us one or two copies of the latest editions of his works, for our libraries of reference. Other doctors could give us donations from their libraries or bequeath them to us, when they shall no longer have need of them. The medical schools can help us by donations of Charts, Diagrams, and teaching apparatus. We should like to have apparatus for laboratory work, surgical instruments and appliances. The Medical Colleges might perhaps spare us some of these things without detriment to their own work. All such donations should be sent to the several missionary societies at home. The officers of our Association in China would see that these gifts were fairly and suitably apportioned between the various schools so as to best aid us in our work. There is only one thing that has given me the courage to claim this help, it is the knowledge which I have (as one of the fraternity) that the profession has only to know of such urgent need to respond to it generously. The innate nobleness of our profession gives me that faith. Every decade sees our advance in the paths of learning, and bears witness of our ever increasing usefulness to our fellow-men. The medical profession is slowly but surely gaining ground, increasing in weight, power and in the esteem of all that is best and noblest of mankind.

We are subject to all the trials and temptations that beset our fellow-men, yet, every true follower of medicine carries deep down in his heart the noble aspiration to "do good unto others." My brethren, it is because we are followers of the golden rule that our future is a bright one. The man, the profession, that always and at all times seeks for the common good of mankind can never fail. We may, we must, have our share of trial and of sorrow, but unto every true man amongst us it shall be said, "Well done thou good and faithful servant, enter thou into the joy of thy Lord."

It was decided to postpone discussion upon the topic until after the reading of papers on Subject No. 3.

P A P E R .

5.—By JOS. C. THOMSON, M.D., Macao.

Chinese Materia Medica: Its Value to Medical Missionaries.

The magnitudes and contrarieties of the "Flowery Kingdom" are the subject of frequent remark. In its *Materia Medica* we find further illustration of this. The well-known treatise on Materia Medica, the *Pun Ts'o Kong Muk* (本草綱目), the standard authority in China and a work unique in the world of medical letters for its wide range, the large number of its contributors and a minimum of truth in a maximum of error, is a "Synopsis of Ancient Herbals" mainly, as 1,096 of the whole number of officinal species of drugs are referred to the vegetable kingdom, making it the best botanical work as well as pharmacopœia, in China. It was published about 1597 by Li Shi-chan (李時珍), a district magistrate, born at K'ichau on the Yangtsze in Hupeh Province, who is said to have spent between thirty and forty years on it, after which it was published in some 40 volumes.

He combined the thirty-nine previous publications on Materia Medica, containing the observations of some 800 authors, beginning with the "Classical Herbal," the first treatise on medicinal plants, by the mythical Emperor Shan-nung (2700 B.C.), the father of ancient Medicine, who, taking the cue from things he was best acquainted with, divided medicines into sovereign (=heaven), ministering servants (or man) and assistants (or earth). The number of these three kinds united make 365, corresponding to the degrees of the zodiac, one degree answering to one day and so completing a year.

Shan-nung, this imperial originator of medical art, it is said, also united with others and established a National Academy in which botany and other branches were taught.*

Li Shi-chan rearranged the 1,518 various drugs recommended by these writers, adding 374 new remedies of his own suggestion. Thus we have some 1,900 substances used in medicine, with 1,100 woodcuts of minerals, plants and animals, and name or synonym attached to each. The third, fourth and fifth volumes are made up of "A Sure Guide, containing Ten Thousand Recipes," by which all the prescriptions which are scattered through the *Pun Ts'o* may be easily referred to. Arranged in their due order under the several classes of diseases, of which several thousands are specified, there are about fifteen or sixteen thousand recipes. The work contains 52 chapters; the 1st and 2nd, Introductory Observations on the Practice of Medicine, and Index of Receipts;

3rd and 4th, Lists of Medicines for the Cure of all Diseases; 5th-11th, Inorganic Substances; 12th-37th, Plants; 39th-52nd, Zoology; the last section, *Man* or Parts of the human body, and human secretions and excretions employed in medicines.

Presented by the son of the author to the Ming Emperor Wan-lih, on his father's death, and first published about 1597, there have been four principal editions or reprints of the work since the original edition. The first Manchh Emperor was a great patron of the work, and the last regular reprint was brought out in 1826.

As to what is *Materia Medica* then, we are told, "whatsoever things are produced in the world,—birds, beasts, creeping things, and fishes, which are generated, and have blood and breath; likewise flowers and trees, which are generated, but are without blood and breath; and also inanimate objects, such as rocks and hard iron,—all these can be used as healing medicines." We have referred to the imperial division of the *Materia Medica*; so we are told the nature of medicines require that some be used as pills, others as powders, some boiled in water, others steeped in wine, and others fried in fat; and there may also be materials that require a combination of these modes. Some are to be used alone, others must be used together, some employed as agents, some stand in awe of each other, among some there is mutual repulsion, others are opposites, and some neutralize each other. Whenever medicines with these seven natures are to be mixed together for use, employ those which associate and assist each other, as you must not employ those which repel and are opposites one to the other.

Medicines are of five tastes, of four smells, and have properties of heat and cold. They operate in three ways, by causing perspiration, vomiting and purging. There is an element of Homeopathy here, but not in the heroic dosage; we read of a sure cure guaranteed under 200 pills a day for two months, or three pounds of medicine daily for several weeks. So the complaint against us is not too much, but too little. The large number of apothecary shops reveal the native willingness to be drugged. We find then in China an exhaustless *Materia Medica* which must prove of great value to us as medical missionaries. Already we have proved its value. A goodly number of these remedies the Chinese place before us with their properties explained, others in very crude form; but as one has remarked, we have before us an undeveloped mine which only needs to be worked to yield us treasures of knowledge.

We give below a brief list of available remedies, and without stopping to further describe them, can do no better service than direct especial attention to the *Chinese Materia Medica and Natural History* of Dr. F. P. SMITH, where they are described along with some 1,260 substances of Chinese *Materia Medica*. Dr. SMITH, a former medical missionary at Hankow, spent some years in the study and examination of native works on *Materia Medica*, (culling the largest

amount of original matter from the *Pan Ts'uo*, above described), and in the collection of the best native drugs :—

Aeonite, Alcohol, Alum, Aniseed, Arsenic, Asafoetida, Borax, Calomel, Camphor, Cantharides, Cardamoms, Catechu, Caustics, Chaulmugra, Cinnamon, Copper Acetate and Sulphate, Cubebs, Galls, Gentian, Ginger, Ginseng, Glauber's Salt, Hartshorn, Koumiss, Iodine, Iron Sesquioxide, Sulphate, etc., Lead, Lignoriec, Lime, Lye, Marshmallow, Mercury, Mineral Waters, Moxa, Musk, Mustard, Myrrh, Olive, Opium, Orange-peel, Peanut and Peppermint Oils, Plasters—Escharotie and Counterirritant, Resin, Rhubarb, Sarsaparilla, Slippery Elm Bark, Soda Sulphate, Stramonium, Veratria and Wax among others.

Dr. SMITH omits the human Materia Medica, seemingly unique in Chinese practice, at least in extent, for we note some thirty bodily parts usable, but remarks, the exclusion of all such substances from this work must not be understood to convey the idea that they are not in use at the present time by the Chinese, for their republication in the last edition in the reign of Tan-kwang reaffirms the practice. Our own observation being proof for the part of *Homo* in the native Materia Medica, we might, negatively, as it were, give some illustration of the "curious, nonsensical and disgusting" substances used; but instead we append a list of references upon this subject of Chinese Materia Medica, though the work of Dr. SMITH must remain our *read mecum*.

We make progress by using materials already collected and building upon foundations already laid, thus may be found of service the following :—

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Of the numerous native works it is sufficient to mention the earliest, that of the Emperor Shan-nung, and the famous Pun Ts'o of Li Shi-chan, in which is a list of 276 medical works quoted, and a list of 440 miscellaneous works from which he made extracts for his Materia Medica.

P A P E R .

G.—By JOS. C. THOMSON, M.D., Macao.

Calculus in China.

A new era opened at Canton when, in the year 1844, the first lithotomy was performed upon a Chinese. In his letter of thanks the father of the patient writes:—"My son, whose name in infancy was Sih-yau, in the 7th month of the 22nd year of Tau-kwang, was *sensible of fever and atmospheric dampness, which, accumulating in the system, eventuated in the disease of stone.* Again and again he requested physicians to treat him, and took their medicines without avail, till fortunately he met Dr. PARKER, more distinguished than Dr. Tso (a celebrated physician of ancient times), and who in his profession imitates the ancient Ki Hwang; and at his office in the City of Rams diffuses universally his kindness and benevolence."

The subject assigned is, *Calculus in the Bladder: Its Prevalence in China*; so we only mention, in passing, the petrifactive tendency of the Chinese as seen in renal, vesical, serotal, urethral, preputial, salivary, ocular and temporal calcareous deposits, and especially in Kwangtung, since Calculus is comparatively rare outside of that Province.

As to the actual CAUSATION OF STONE we may not be a great way in advance of the native theory in this first case. Calculus is believed to be a disease of

limestone regions (calculus from *calx*, lime); or, "calculous diseases are most common where the mineral strata are of calcareous formation."

The Kwangtung rivers seem to flow through districts rich in lime, and the natives use this otherwise impure river-water largely for cooking and drinking purposes, and overboiled, so that there is a considerable deposit of lime; but these conditions also exist in other parts of China, where stone is rarely found; so the *geological* argument is insufficient. The lime-salts in the "bean-curd" cakes, an important article of diet, with which gypsum (sulphate of lime) is mingled, are also held responsible, but do not probably very much strengthen the argument, for the same reason. The following, also applies at Canton: "Dr. CRISP, in some remarks made at a meeting of the London Pathological Society in 1869, on the case of a Japanese dog affected with large calculus of the bladder, laid down the law that the use of sugar and beans as food leads to the formation of stone, and that the use of meat lessens the tendency to calculous diseases. Now the former substances, sugar and beans, or bean-curd, are very largely consumed in this part of China [as in Kwangtung], sweatmeats and a compound of flour and sugar being sold in very large quantities in the streets, whilst meat is scantily partaken of. Yet stone is a disease almost unknown in Hankow and the adjoining country. This infrequency is in striking contrast with the prevalence of this painful and fatal disease in the South of China. The character of the water drank, as well as the nature of the food, and the degree of concentration of the urine during a long period of the year, have probably much to do with the occurrence of this disease apart from individual or local peculiarities of constitution."*

"Gout and stone," says Dr. DUDGEON, "are often found together. If uric acid calculi, therefore, depend upon a certain acid form of dyspepsia, and have any connection with rheumatism and gout, stone ought to be of frequent occurrence in all parts of China, as the most common form of indigestion among the Chinese everywhere, and especially at the north, supposably from the nature of their food, is that arising from overacidity." But as Dr. WONG observes, "the gouty diathesis appears to have little to do with the prevalence of calculus, as gout is scarcely ever met with among the native population, and a large proportion of the stone cases are farmers."

Again, the condition of the system which leads to the affection has been conjecturally assigned to "malaria, and peculiarities of the diet of the natives," so "humid climates and moist localities" are supposed to be productive; but these are hardly more applicable to Canton and vicinity than elsewhere; and Dr. WALES of Canton, remarking with ourselves that the great majority of calculi are composed of *uric* acid and its combinations, adds: "I have frequently

* Dr. SMITH'S Hankow Hospital Report, 1869-1870, p. 15.

been consulted by foreigners residing here who suffered from gravel, which in every case examined was composed of lithates. These cases occur most frequently during the very hot months, when the renal secretion is most scanty and concentrated. In no instance hitherto have I here met with a patient who exhibited symptoms of gravel during the winter months. The stone cases admitted to the hospital mostly come from the farming classes, who are compelled by the nature of their occupation to undergo severe physical exertion while exposed to great heat."

"One of the ultimate consequences of long-standing unrelieved organic stricture of the urethra," says Dr. BUCKSEN BROWNTON, "is atony of the bladder, and atony of the bladder not unfrequently leads to the formation of phosphatic vesical calculus."

While stricture is common enough in China it affords no adequate cause.

By way of summary, the saccharine and bean-curd diet with lack of animal food, the impurity of the water, persistently taken hot, along with the low malarious locality and the degree of concentration of urine during a good period of the year, the farmer and laborer (constituting the great majority of the cases) working under the hot sun of this southernmost province, must be main elements in the solution of this problem. The accompanying geographical distribution of the cases may, we trust, help to a conclusion as to the causation of Calculus about Canton.

TREATMENT.—There is something said of native operative procedure, and we remember seeing a quack who pretended something could be done with a bent wire. Possibly something of the heroic, not to say brutal, measures heard of as occurring in India may have been in vogue in the Golden Age so much boasted of when surgeons abounded. But there is no question that the native practitioner does attempt to dissolve the stone by medication, whether by burnt-hair ashes or what not. There is a story told of a French missionary in Corea who, years ago, after long and terrible sufferings, was relieved in a few hours by a potion from a native physician. Externally they seek to relieve by the moxa and the actual cautery applied to different parts of the abdomen.

No doubt at an early stage we may do something by internal medication, *cide* advertisement of "Buffalo Lithia Water," etc., with boasted solvent properties for stone in the bladder. Not to multiply instances, Dr. PARK reports a case relieved by mineral acids; Dr. JARDINE, of Kiukiang, the cure of a missionary some 20 years resident in China, who had voided some 1,500 small calculi, by the prescription of Dr. ROBERTS of Manchester: "*Recipe*.—Potassæ bicarb. 1½ ounce, Acidi citrici 504 grains, Aquæ ad 12 fluid ounces. The dose of such a solution is six to eight fluid drachms, with three or four ounces of water. Two table-spoonfuls every three or four hours. Diluents to drink; avoid much animal food, vinegar and wines, and to live on farinaceous diet." The patient had also change of residence and left off Chinese diet.

But in most of the cases in China operative measures must be our main dependence, since the patients are apt to have first undergone a course of treatment by several of their own practitioners, the stones not small and the subjects not readily submitting to a long course of treatment at the hands of one practitioner.

Lithotomy is said to have been known in India long before it was practised in Europe.

We have no knowledge of it in China before 1844; since then it is no rarity, specially about Canton, where there have been upwards of 1,000 such operations, mainly by the lateral method; comparatively few median, and but few suprapubic, with some 250 lithotrities mainly with Bigelow's apparatus, and almost all by Dr. KERR, who will not believe that a lithotritry operation killed Emperor Napoleon. Incompleteness of one or two reports prevents more exact figures as to the exact proportion of lithotomies and lithotrities.

The comparative merits may be stated in about this way:—

The lithotritry must more often be repeated, the return after a lithotomy being less frequent; so at times it cannot be finished because of undue hardness of the stone, or unwillingness of patient to remain so long in the hospital for sitting after sitting, in one case as many as sixteen: thus the operation does not seem so successful in the eyes of the Chinese, having to be repeated again and again, as that of lithotomy, which is over at one sitting. The nervous shock is apparently greater, as the greater mortality would seem to show; and the natives seem more restive under, and less able to sustain, the after treatment of lithotritry. Again, Cystotomy, or the lithotomy operation, is performed for simple chronic cystitis, a usual accompaniment of vesical calculus, and so this and the albuminuria at times found are relieved by a lithotomy, as indeed has been reported of Bright's disease, and the fatality from lithotritry is apparently greater. Therefore lithotomy is the usual and more successful operation and lithotritry is confined to a comparatively few favorable cases. As to the form of the lithotomy operation there is enough variety; the suprapubic seems to be gaining favor; though a combined lithotomy and lithotritry, according to the plan of Dr. KERR (*C.M.M. Jour.*, Dec. 1888), in which, following upon the lateral lithotomy, there is the fracture of an overlarge stone to allow of its ready removal, may have much in its favor, particularly with improved instrumentation.

Meanwhile we give the historical LANDMARKS and some of the CHARACTERISTICS OF CALCULUS in China.

Prior to the advent of the foreigner we need hardly go. The celebrated *Pun Ts'o Kong Mok*, of the close of the 16th century, under *Homo* in *Materia Medica*, mentions pulverized urinary calculus as an internal remedy for asphyxia; and canine urinary calculus is prescribed in heart-disease; again, a solution of hair ashes is recommended for the cure of stone. Coming then to *modern* history we

find reported in Dec. 1844 the first lithotomy ever performed upon a Chinese:—a case of 10 years' standing, in a young man of Canton province, the stone of 9 drams weight and $3\frac{1}{2} \times 5\frac{1}{2}$ inches in circumference, in which the operation and treatment were in the highest degree successful, with complete cure in 18 days, the operator, the pioneer Medical Missionary, Dr. PETER PARKER.

His third case was one of 23 years' standing, the longest on record being of some 25 years' growth; of 20 years' duration we find quite a number, in 1882 three such, all recovered, one of 31 calculi; of 10 years and upward 78 are recorded. Case 15, in 1849, was the first under chloroform, so frequently used since with never a fatality.

In case 19 (1849), the patient admitted moribund, surprisingly enough a post-mortem was permitted, and by a suprapubic operation a large stone of 3 ounces lying in the bladder, prostate and neck of bladder, and bound immovably by fibrous bands, was extracted.

In case 43 (1856) Dr. KERR begins his reign and counts his thousand—not slain, but mainly recovered, though “cut and crushed.”

In his second case, Oct. 10, 1856, he gives us the *first successful lithotomy* in China; though Dr. PARKER, in his first case in 1843 broke down the stone into two pieces, but on account of its hardness and vesical irritability, in the following year completed the operation by a lithotomy. In Dr. KERR's next the patient was removed from the hospital moribund after operation on the day (Oct. 27, 1856) when shells were first thrown by H.B.M. Gunboat Encounter into Viceroy YEH's palace.

Case 197, because of large size (of 4 ounces weight) and hardness, had to be broken up with chisel and mallet and bone forceps.

Case 376 (1874) gives the first lithotomy operation upon the female, while 894 (1883) records the first lithotripsy. Five other female cases are recorded.

The year 1876 gives the best showing, in 71 operations, 1882 records 70, while 1881, of about 100 cases of vesical calculus admitted (with extraction of 16 urethral and preputial), shows 66 operations, over 30 leaving without submitting to operation, and two dying from long-continued suffering.

Calculus, as seen in the cases presented at the Canton Hospital, is by far the most prevalent among the working classes,—those of out-door employments, and of these largely the farmers. We find but 10 marked “scholars,” 9 “students,” 2 “teachers” and one “priest,”—probably not equally literary, but who sadly enough did not leave the hospital alive.

No age is exempt. From 2 years up to 80, of which latter we have several, and above 70, some thirteen, while over 60 a larger proportion—all have undergone operation.

In weight we have from $7\frac{1}{2}$ ounces, or 8 oz. in the two calculi of case 692, and several of 6 oz., with recovery in all, to the least of all. No. 9 gives a circumference of 10 inches.

In number, case 812 counts 31 calculi, case 267, 22, etc.

In composition the most are of uric acid. A number were encysted, as in case 812, where the sac contained no less than 30 calculi. Case 118 was that of a blind man. One with open nrachus. Calculi are also found in the urethra frequently, in the prepuce numerously, often, in one case to the number of 124, in the neck of the bladder, the kidneys, and in the scrotum, a great rarity on this mundane sphere.

In Dr. PARKER's early reports are lithographic plates of noteworthy calculi, fac-similes as to form and dimensions; so similar woodcuts are presented in Dr. KERR's reports.

As to result, while the large majority recover, one being reported of union by first intention and others entirely healed in ten days and longer, some 80 deaths are recorded; an excellent record considering the possible dangers in this "one of the most formidable operations in surgery." From case 210 to case 312 we have but five deaths.

LOCALIZATION.—Canton's collection of *fossils*—stone, gravel, vesical, urethral and preputial—is unique in China, if not in the world.

At the Canton Hospital there have been 1,261 operations for stone in the bladder to date, which, with 58 at the Canton Kun-li-fan Hospital, a time under Dr. KERR's care and afterwards incorporated with his Hospital; and 97 at the Fatshan Hospital, but twelve miles distant; and 11 at the Swatow Hospital, on the eastern boundary of the Province, gives us a grand total of 1,427 stone operations for Kwangtung Province, exclusive of a considerable number who were refused operation because of extensive disease or debility, or were unwilling to submit to the operation after examination, or failed to return after first presentation, not to mention many cases of urethral calculi, or vesical calculi expelled from the bladder before operation.

It may be doubted whether any other portion of the globe of equal area can show such a record. Or in the words of Dr. DUDGEON:—"It has been reserved to the Medical Missionary at Canton to present an array of cases unequalled probably, both as regards numbers and success of operation, by any Hospital in Europe or America."

We read of the celebrity of Dr. WEST, of the American Board of Missions in Turkey, for 154 operations for stone, of which scarcely a half-dozen resulted unfavorably; and of the brilliant success of Dr. POST, of the American Presbyterian Mission of Syria, in a similar record; but in Dr. KERR we have the Sir HENRY THOMPSON of China.

Stone is generally supposed to be more frequently found in cold than in warm climates; but in this China is upside down as usual.

At the Peking Hospital, opened in Oct. 1861, it is not till 1883 that we find a *bonâ fide* case of stone in the bladder reported.

in 1871, there is an account of the *first case of calculus*, though urethral, 7 years' standing. It was cut down upon and extracted from the navicular fossa and weighed 50 grains. In 1872 we read of the first lithotomy, spoken of as a "novel operation in N. China," but the occasion of this was the removal of a five-inch piece of chopstick introduced into the urethra, which had passed into the bladder some three days before, and on one portion of which was a thin, hard incrustation. It was removed by the median operation.

Shortly after, a similar operation was employed to remove a two-and-a-half inch long lead bougie, inserted into the urethra for a medical purpose, but which had likewise slipped into the bladder.*

In 1873 we have report of two other urethral calculi extractions, and in the same paragraph the account of the removal of a "rough, round, flat calculus of a scruple's weight from a tumor of eight years' standing on the right temple."

In 1883 we note it would seem the first operation for removal of spontaneous vesical calculus. Two such were removed by the median operation, and one or two cases of urethral calculus relieved, with a particularly interesting case of vesical stone cured by lateral lithotomy. Two urethral calculi were first cut down upon and removed, then 48 stones, the largest larger than a hen's-egg, the others as large as pigeon's-eggs. The patient was two hours under chloroform. The case excited much attention at the capital. Such a disease and such an operation had never been heard of. Immediately after the operation and daily crowds appeared at the hospital requesting to see the stones and the patient. The stones were circulated round the city and seen by the ministers of the Tsung-li Yamên, the Presidents of several of the Boards, and it is said were also taken into the Palace.

Dr. PRITCHARD, in Report of 1887-8, remarks: "As far as Hospital records go, cases of stone in the bladder are decidedly uncommon in this part of North China. Three have been admitted during the year. Two of these calculi, however, were probably entirely indebted for their presence to bougies which had found their way into the viscus in question. Two were extracted by a modified median operation, as suggested by Mr. REGINALD HARRISON (*Lancet*, July 1887), which allows of extraction of stones of considerable size with ease and safety. The third case then awaited operation. We have found thus but several *bonâ fide* cases of stone in the bladder at the Peking L. M. S. Hospital, and hardly more than a dozen operations probably in Peking, including several of the An Ting Hospital, where, in 1887-8, we note two median lithotomies, though one was for extraction of a piece of bone that had slipped into the bladder.

At Tientsin there have been some eight such, we are told. At Chefoo, Dr. DOUTHWAITE reports two lithotrities. At Pang-chuang, Dr. ПЕЧК, two

* Rep. 1872, p. 5.

suprapubic operations. At Chinanfu, Dr. COLTMAN reports removal of large stone of some 1,305 grains by the lateral operation in March 1889.*

In Shanghai, at St. Luke's Hospital, Dr. BOONE reports three lateral and one suprapubic operations, and, singularly enough, all upon Cantonese subjects.

Dr. JAMIESON, in 21 years, has performed one lithotomy and one lithotripsy upon Chinese, the former a lateral operation upon a high Nankin official, I believe.

Dr. PARK, of Soochow, reports having seen but one case, which was treated by medication successfully, it would seem.

At Hankow, Dr. F. P. SMITH, in an early report, remarks having not yet met a case. Some dozen or more operations have been since reported. In 1877-8 Dr. Mackenzie reports four calculi cases, two lateral lithotomies, one extraction of urethral calculus, and one refused operation.

In 1885-6, Dr. GILLISON records four or five urinary calculi cases having presented: three consented to operation by the lateral method, "a large number for this district, in which calculus seems comparatively rare."

In Amoy we have a case of extraction of urethral calculus by Dr. LANG in 1885, a lateral lithotomy by Dr. MACLEISH in 1887 and another in 1888, and in 1889 we have mention of several suprapubic operations by Drs. RINGER and LANG.

On Formosa, though we have a record of several cases of urethral and preputial calculi, we see but mention of one lithotomy—in a female—and one lithotripsy, both by Dr. A. RENNIE, who remarks, "cases of stone in the bladder are exceedingly rare in this island."

As we approach Canton our numbers increase. Foochow Report of July 1873 reads: "Only three cases of stone have been met with since the opening of the Hospital. The first, a child aged 5 years, whose parents refused to submit him to an operation. The second, a case of urethral calculi, was cured. The third, occurring in 1873, was relieved by lithotomy." The report of 1878-9 remarks, urinary calculi are comparatively rare north of Kwangtung; in Foochow out of some 80,000 patients treated in the two hospitals for various diseases, there have been less than a dozen cases of stone (including urethral) and of these, two the past year. The first, a Canton man, was relieved of a small urethral calculi. The second was a lithotomy, but return of the trouble necessitated the use of the lithotrite several times before he was cured. In 1879-80, Dr. OSGOOD reports a case of lithotomy in which attempted lithotripsy had resulted in the breaking of the instrument, and remarks: "less than ten cases of calculi have been operated upon in Foochow."

In 1886 Dr. WHITNEY records one lithotripsy operation. The other native Hospital shows about a dozen more cases, we understand.

* *C. M. M. Journal*, June 1889.

The story of Swatow is thus :—In his report of 1867 Dr. GAULD remarks :
 “ Two cases of stone, one in the bladder the other in the urethra, came under observation this year. The former failed to return for operation, the other was relieved by a slight operation. So far as I remember, they are the only specimens of this disease met with since the commencement of practice here in 1863. This is the more remarkable as in the Southern part of the Province, at Canton and the adjoining districts, it is not at all uncommon. At the Canton Hospital the operations for stone have been numerous and the result very satisfactory.” In 1875, three ‘urinary calculi’ are reported, without operation. In 1876 we find ‘urinary calculus’ two, of which one was operated upon. In 1879 there were operations on two cases—urethral and preputial. In 1881 three urinary calculi presented, two refused operation; but the other, ‘*the first patient who has undergone an operation for this disease in our hospital,*’ was successfully relieved by lithotripsy at the hands of Dr. LYALL. In 1882, two vesical and one urethral calculi applied for treatment. One of the former was crushed; and the urethral stone extracted. In 1883 three vesical calculus cases presented themselves; one submitted to a successful lateral operation. In 1884 one vesical calculus and one gravel applied and one *salivary* calculus was excised. At Ng-kang-phu two calculus cases are recorded, one of which Dr. RIDDEL soon presented with five bean-sized preputial stones, no doubt gratuitously, though the merchant had been a sufferer many years and had spent \$100 on the native faculty in a vain hope of being cured.

To the present year four urethral cases are recorded, and 18 vesical calculi, possibly not all new cases; of these latter, five were relieved by the lateral operation and three by lithotripsy.

At Hongkong we find in the Alice Memorial Hospital Report of 1889, ten lithotomies, one lithotripsy and two urethral calculi extractions.

At Fatshan, Dr. WENYON’S reports to 1889 show 85 lithotomies and 9 lithotrities, 13 urethral and 5 preputial extractions.

It has been remarked that foreigners, even after long residence in Kwangtung, do not suffer from stone, yet a few cases are noted. We make no pretence to a complete list here. Dr. JARDINE at Kiukiang reports, in 1876, the case of a missionary resident in China since 1859, and who had adopted the Chinese style of living. He had voided some 1,500 small calculi, it was estimated, but on coming to Kiukiang he was cured by internal medication.

At Shanghai, Dr. JAMIESON reports, I believe, two lithotomies, and two lithotrities in foreigners.

On Formosa in 1871 there was a case of urinary calculus, but the concretion was voided by the urethra.

At Swatow note is made of a case of biliary calculi, in 1877, in a lady, and at Macao of two calculus cases.

At Chefoo, it is said, there is frequently found an habitual deposit of urates in the urine, a condition of lithuria, among foreigners.

In Corea stone has been reported as prevalent, while at Yokohama, we read, calculous diseases appear to be almost unknown. In ten years one case only was admitted into hospital there—that of a non-resident; the records of the cemetery contain few cases: nor have they been met with in private practice, save when imported.*

Opportunity to complete the account, so far as China is concerned, was wanting. It is to be hoped this may be done through the medium of our Journal.

DISCUSSION.

The discussion was opened by Dr. KERR, who said he could only offer a few practical hints. Hemorrhage after operation was preferably stopped by plugging the rectum, not the wound; where this failed he used manual compression in addition; this would be successful in all ordinary cases. Large stones should be broken up by mallet and chisel or, better still, by a drill working into the centre of the stone, the stone being steadied by a pair of light non-fenestrated forceps. No shock or bruising of wound thus. Being asked by Dr. WARSON how he accounted for the greater prevalence of Calculus in the South, Dr. KERR said some thought it was due to bean-curd diet, but considered this explanation improbable. Suggested that it was due to continuous and excessive perspiration favouring concentration of the urine and precipitation of its salts. He prescribes rain and distilled water to his patients. Dr. JAMESON referred to a recent debate at the Medical and Chirurgical Society of London, in which a statement had been made that the great prevalence of Calculus in South China was due to the absence of salt in the food. This statement he ridiculed; thought it would be useful to hear Dr. KERR's opinion on that statement. His own experience of Calculus during 21 years' practice in Shanghai, was limited to two cases amongst the natives and four amongst the foreigners. Dr. LALCACA spoke of the common occurrence of Calculus in India, and said it was very common in the Province of Scinde, attributable possibly to the very impure water they drank. In the Presidencies where the water supply was good, Stone was far less frequent. Dr. HODGE was interested in the relative frequency of Stone in South and Mid-China, though not so common as in the South still by no means uncommon in Hankow. Thought its prevalence in Mid-China under-estimated. Dr. GILLISON had operated on about 18 cases and about an equal number had refused interference. Dr. ROBERTS said Dr. MACKENZIE had operated eight times in nine years. Dr. MORLEY thought hospital reports were not a safe basis for investigation,

* Med. Reports, C.I.M. Customs. Gordon, London, 1884, p 190.

as he felt sure that hospitals got reputations for certain things, and all these cases drifted to them. This remark was confirmed by several subsequent speakers.

Dr. LYALL though so near Canton saw but few cases: yet bean-curd is a common article of diet in Swatow, and the climate is hot enough to cause excessive perspiration; but then Swatow was not a lime-stone district. Had operated, in all, some 16 times, and every year more patients came to him. Dr. REID thought there was no doubt that Calculus was more prevalent in South China. Did not think Dr. Kerr's suggestion of excessive perspiration and concentration would explain it. Concentration *alone* would not cause stone formation, or a precipitation of salts,—there must be an excess of albuminates in the food. He therefore thought that the bean food theory might have something in it, as beans contain an excess of albuminoids.

Dr. DOUTHWAITE said beans formed a greater article of food in the North than in the South, and yet Calculus was rare. He had seen 12 cases of stone, but only operated twice. The PRESIDENT differed from some of Dr. Kerr's opinions. He should recommend Lithothrity more extensively, especially for children, and referred to the paper of Fryer and Keegan in India—also that the same principle can be applied to fairly large stones. It is always wise to have your lithotomy instruments at hand for any such emergency as locking of the blades of the Lithotrite. Thought Dr. Kerr's recommendation of mallet and chisel open to several objections:—(a) the chisel might slip and wound the bladder, (b) hard chips of the stone might fly off and wound the mucous membrane, (c) it might be impossible to remove all the fragments. Thought the supra-pubic was *the* operation for large stones—don't cut into the pre-vesical fat, which contains the fold of peritoneum reflected from the bladder, but push it up with your finger. If the stone is too large for your opening, dilate it by manipulation rather than cut any farther. Dr. KERR, replying to Dr. Jamieson, said that salt fish was a universal article of diet in South China.

P A P E R

7.—By JAS. B. NEAL, M.D., Chinanfu.

Training of Medical Students and their Prospects of Success.

The subject which has been assigned to me for discussion, is one in which I am deeply interested, and though I feel somewhat diffident about offering my ideas, upon medical teaching to my colleagues, after so short an experience in China, yet there is no other theme upon which I should prefer to write. Before coming to the foreign field, my attention was directed to the subject of training native doctors, and I was invited to Shantung more particularly to engage in such work, so that from my arrival on the field my thoughts have been directed in

that channel. My first three years were devoted to preparation for teaching, and the past three years to the carrying on of a medical class of five young men through a systematic graded course of medical study. Now having premised just how much, and just how little experience, I have had in this line, I shall proceed to briefly discuss the question.

I.—Length of Course:—

The one lesson above all others which my experience has taught me is, that in order to train students in a satisfactory manner, abundance of time must be allowed, so that not only may it be possible to take them over a settled line of studies once or twice, but so that they may have leisure to review and re-review, and in cases where there are collateral books, may have time to do outside reading, in addition to the regular recitations and lectures. I started out to take a class through in three years, but had not half exhausted the time, when I saw how impossible it would be to accomplish the task in the time allotted, and only by unusual efforts will it be possible, by keeping them another half-year, to put them through the course, and give them the opportunities for clinical instruction which they should have. Under the most favorable circumstances, it is impossible to give more than eight or nine months of each year to systematic teaching, and when the extra calls upon a physician's time and strength are taken into account, he may count himself fortunate if he is able to secure seven months of uninterrupted time for such work. So that I think the minimum of time which should be allowed for medical study should be four years, and if it is intended to include any preliminary studies, such as Physics, History, Geography, etc., in the course, five years would not be too much. In addition to thus fixing upon a definite term of years to be spent in study, I think it is well for the instructor to also lay down certain rules for himself, in regard to the amount of time he will give to teaching. The rule, which has been lately adopted by the Shantung Presbyterian Mission, requires four years of study, of at least seven months' teaching in each year. This seems a fair proportion of time to be given to systematic instruction, the students of course being expected to spend a goodly portion of the remaining five months, especially during the latter part of their course, in care of the sick in hospital, and in listening to occasional clinical teaching. With regard to the amount of time to be given each week during the regular terms to the teaching, no doubt no two men's circumstances and engagements are alike, so that no general rule can be laid down. My own habit is to have eight recitations or lectures a week, one in the morning and one in the afternoon on Monday, Tuesday, Thursday and Friday; the students being also required to assist in the Dispensary on alternate days, and to receive instruction clinically as occasion serves. This keeps them fairly busy, yet allows them time for recreation, and for necessary copying of notes, and for other miscellaneous duties.

I am quite aware, of course, that my circumstances in T'ungchowfu have been exceptional, and that with a larger practice on my hands and more outside demands upon my time, I might find it quite impossible to give so many hours exclusively to teaching. I think, however, with a properly qualified assistant, who could help in the teaching, it might be possible to require as many as eight recitations per week, or possibly more during the first year or two, when the students are not yet prepared for clinical work.

II.—*Medium of Instruction* :—

Notwithstanding the strong plea lately made by a writer in the *Chinese Recorder*, for the teaching of foreign sciences in English, and the sanguine views he took of the case with which such teaching could be carried on, and the prospect of success which would attend it, I can not help but feel more and more convinced that the medium which we as missionaries should use, especially in places remote from the ports, is the Chinese. With a settled system of nomenclature, which I feel sure we shall not be long in securing, the Chinese language, I believe, can be made to express all the ideas which we wish to convey in the teaching of Medicine. I would by no means decry the use of English by those who are willing to spend the time necessary to teach it, for certainly in the present scarcity of good books, and the unsettled state of the nomenclature, no student can hope to obtain so thorough a knowledge of medicine by the study of Chinese books alone, as he can by the use of English, but I think we should use our utmost endeavor to fix upon a suitable set of terms, and build up a native medical literature, which shall enable a Chinaman to attain to perfection as nearly in his own language as in English. Except in the case of those who have unlimited time and money at their disposal, to enable them to spend years in the acquisition of English, and perhaps go abroad to pursue their studies, I have no faith in the ability of the Chinese to so master English as to be able and willing to read English books for the pure pleasure of acquiring knowledge. How many of us, who have spent the best part of six or seven years in the study of Chinese, feel sufficiently familiar with it to pick up a book and read it for pleasure, without either teacher or dictionary to help us? And how much less the Chinese in the reading of English, who, surrounded by people constantly speaking a language different from that which they are studying, have not the same incentive to apply themselves and master the English for daily use. I conceive that the study of Medicine in English must always be confined to the favored few, who have resources at their command, such as almost none of those who come to be taught in Mission hospitals have.

I think too, that teaching should be done as much as possible by the use of text-books and by regular recitations, rather than by lectures. The system of medical education at home, by means of lectures, is not only a bore, but for the majority of students entails an expenditure of valuable time, out of all proportion

to the amount of benefit derived from the lectures. Many times have I thought, while listening to a dry lecture on Practice during my medical course, how much more I could absorb from an hour with a good text-book in my own room, than I was getting from him. Here too, where students are unaccustomed to taking notes, the delivery of lectures is a very slow and tedious work, involving a large amount of repetition, and reiteration, in order to insure a full understanding of the subject in hand.

Again, I think we can not be too careful in the preparation of text-books in Chinese, especially of those which we propose to have printed and offer to others for use in teaching. Nothing is so vexatious as to find a printed book so full of mistakes, as to be practically useless, until gone over and corrected, or so elementary in the treatment of a subject, as to make it necessary to supplement the book largely by lectures and explanations. We owe it to ourselves and our own reputation as teachers of the Chinese, to strive to put forth nothing but what is as good as it is possible for us to make it. In the line of translations of some of the many excellent text-books, now issued in England and America, there is a wide field open to those who are fitted for such work, and the sooner more of the members of our Medical Missionary Association, who are qualified for it enter heartily into the work of translation the better, only let us by all means have good, honest work and first-rate Chinese, let us not disgrace ourselves and dishonor our cause by sending out slipshod productions in language, which no well-educated Chinaman will tolerate.

III.—*Course of Study* :—

It should be our aim to make the course of study for Chinese medical students, as thorough and comprehensive as in the medical schools at home, dividing the studies among the four or five years in a systematic way, and endeavoring to send our graduates out thoroughly equipped for the work before them. Of course we can not hope to pursue the study of Anatomy and Pathology, as is done in the West for many years to come, but by the use of models and preparations, and dissection of animals, I believe it is possible to give men here a good knowledge of Anatomy, and, by the use of preserved specimens, at least some practical information about Pathology. In the line of Histology, I see no reason why as careful and practical work in laboratory, should not be done here as at home, while for the study of Chemistry, I should like to make a special plea. Being particularly interested in this branch, and believing that only by practical work in the laboratory can a useful knowledge of Chemistry be gained, I have taken my present class, and propose to put future classes through a course of several months or a year of laboratory practice, teaching them the reactions of the more common elements and the analysis of inorganic compounds, and closing with a study of the more important secretions and excretions of the body, such as the gastric juice, pancreatic juice, bile, urine, etc.

Upon all, of what may be called the foundation studies, such as Anatomy, Physiology, Chemistry and Materia Medica, I feel like laying special stress, grounding the students thoroughly in these, before carrying them on to the higher branches. Two full years spent upon these studies would certainly not be lost time.

When we come to the more practical branches of Surgery, Practice, Diseases of the Skin, and of the Eye, we certainly have an unrivalled field for practical teaching. I do not hesitate to say that if a student makes the most of his opportunities for clinical study, and his preceptor is careful in making use of the cases which come to his hand, he may gain a wider practical knowledge of the branches mentioned above, except of course, emergency Surgery, than in many of the crowded medical schools at home, where the number of students is so large, that each individual has comparatively scanty opportunities of examining patients for himself. The great difficulty lies in the backwardness of Chinese students in availing themselves of chances which come to them of studying cases for themselves, they, apparently lacking the enthusiasm which many students at home possess, and which makes them eager to learn. Here, young men seem content to learn simply the task set before them, waiting for the leading of the preceptor in all things, being apparently incapable of marking out work for themselves, or of doing independent thinking. This brings me to the consideration of the fourth division of my subject, namely,—

IV.—*Co-operation in Teaching :—*

Many of us being stationed alone, without any colleague within several days' journey who can take part with us in teaching, it becomes a serious question how to give our students that variety of instruction, and that stimulus, which comes from listening to different instructors.

The best solution of the difficulty no doubt is, to have two or more physicians associated in work in the same place, mutually supplementing each other, and each teaching those branches in which he feels the most lively interest. But in many cases this is impossible, and then comes the alternative of co-operation between different stations of the same Mission, or even a grand combination of all the physicians in a given province, regardless of differences between Missions, for the purpose of training medical men. These, however, are only suggestions of what may be done in the way of co-operation now, in the present unsatisfactory state of affairs. No doubt we all look forward to a time in the future when strong and well-equipped medical schools will be found in different parts of the empire, to which students may be sent to receive that thorough training in medicine, which it is impossible for any one or any two men alone to give them. Nothing is more certain to my mind than the fact that without variety in teaching, we can not hope to produce well-rounded-out physicians and surgeons. No one man, no matter how good he may be himself, nor how diligent in striving

to give his students a thorough training, can do everything in the way of teaching, that should be done, and at the same time attend to his medical work. Then too, the influence of more than one mind upon students in quickening their perceptions and in giving them many-sided views, waking them up from their lethargy and inspiring them to think for themselves, is a most important element in the training of young men to enter upon the responsibilities of the medical profession, in circumstances where they will have to depend solely upon their own attainments and their native ingenuity. In some, I hope many cases, our students in practising for themselves will be far removed from foreign physicians and from fellow-practitioners qualified to help them in difficult cases, and then woe to the man who, with few or no books to consult, has never learned to think and plan for himself.

V.—Object in Training Medical Students :—

No one probably will gainsay the proposition, that the training of medical men with the purpose simply of fitting them to minister to suffering people, and thus help their fellows physically, is a noble and worthy object. But we as missionaries of the Gospel, I think, should have a still higher aim in view, namely, the training of men to be teachers of their countrymen in spiritual things. Not that I would advocate the tacking on of a theological training upon a medical education, for I think the two should be kept entirely separate and distinct, but that in our intercourse with our students and in our prayers for their success, we should keep constantly in our view, and in theirs, the prime importance of their exerting a marked influence for Christianity. For this reason I think it is well for us as far as possible to train Christians, or at least to have the Christian element in our classes decidedly dominant, to have regular meetings for prayer with them, aside from the daily worship, to encourage them to talk with patients, and in every way endeavor to instil into them the spirit of missionaries, making them understand that we look to them to let their light shine, and that though they may not be connected with any Mission in doing direct missionary work, but depending simply upon their profession for a living, yet we expect them to be as earnest in trying to lead others to a knowledge of the Gospel, as if they were employed for the purpose. My own hope in training medical students is not that they will become helpers in Mission hospitals, or enter into the employ of foreigners in any other capacity, but that they will go out among their countrymen, and *live* the Gospel among them, depending upon their practice for support, and taking every opportunity to speak a word for their religion. If we train men with this end in view, of sending them out as independent workers, I think it is even more important to give them the very best of medical instruction, than it would be if we were fitting them to be simply helpers in mission dispensaries, where they would be under the supervision of foreigners.

No doubt a certain proportion of our graduates will always be employed as assistants to foreigners, as they are indispensable to us, and in certain cases it may be advisable to entrust dispensaries entirely to their care, making them real medical missionaries, but I think these cases should be the exception, and that our aim should be to build up a native medical fraternity, thoroughly Christian in spirit, and independent in its workings. But in thus sending out men to be independent practitioners, we can not hope to see them progress in medical knowledge and skill, unless we give them a journal in their own language, devoted to keeping them informed in regard to the advances of medical science and practice. For this reason I am most heartily interested in the proposal to start a medical journal in Chinese. Such a publication would serve not only to keep the young men up to the times, but would also be a medium of communication between teachers and former pupils, which would be very desirable. Moreover it would foster a certain *esprit de corps* among men practising foreign medicine in different parts of China, which in the future might be very much to their mutual advantage. Such a journal, I conceive, might be made up in part, perhaps in large part, of translations from foreign medical periodicals, and these translations, supplemented by articles from foreign practitioners in China, and from native medical graduates, might be combined into a publication which would command the support of not only those who are practising foreign medicine, but also of many of the native faculty, who are anxious to learn a little about foreign methods of practice.

VI.—*Prospects of Success*:—

My paper, I fear, is already too long, so I shall leave the discussion of this part of the subject, to those who have had a longer experience and therefore can speak more authoritatively upon it, merely remarking in passing, that of the three or four natives whom I know to be practising foreign medicine in this region of Tungchowfu, all, with possibly one exception, are making more than graduates of the first degree can command, and this despite the fact that not one of them has received a thorough training, having merely picked up what they know, through assisting foreigners in dispensary practice. It would seem that if these men can succeed, surely men of energy and devotion, who have faithfully prepared themselves for practice ought to be able to do at least equally well.

PAPER.

8.—By J. G. KERR, M.D., Canton.

Training Medical Students.

The introduction of Christianity into a heathen country is a work of such magnitude, that those engaged in it must seek on all hands for whatever aid can

be brought into service. The education of native youth for service in such departments as they may be fitted for, is resorted to by all missionaries, and it is evident the evangelization of populous heathen countries without the aid of natives in all departments is an impossibility.

Medical Missionaries are especially dependent on natives for assistance in dispensing medicines and taking care of the sick, and are therefore under the necessity of training helpers, who can relieve them of much of the manual work. More important than dispensers and nurses is the training of native physicians, who can discharge many duties otherwise devolving on the foreign physician, and thus save his health and strength and enable him to extend his work. It is therefore not only an economy of time, money and strength, to have qualified medical helpers, but those who are thus trained are prepared to act as physicians for their own people, and this is one of the great objects to be kept in view.

The instruction of two or three students involves as much time and labor as ten times that number, and if many pupils offer, there must be some reason for rejecting them.

Support.—When medical work is new in any locality, and the benefits of Western medicine unknown, it will be necessary to give support to those who are being trained as assistants. In the course of time others will wish to learn, and such as can do so should be required to pay their own expenses, and ultimately a fee for instruction should be received. As in Western countries, there are always promising young men without the means of supporting themselves during a protracted course of study, and it will be advisable to have scholarships, the benefits of which can be extended to worthy persons, on such conditions as will avoid abuse of the benefaction, and secure the object aimed at.

Shall only Christian Students be Taught?—However desirable it may be to have only Christian Students and Physicians, it would be unwise to make profession of religion a condition of acceptance. Any pecuniary or other inducement to bring young men into the Church would be sure to result in increasing the number of unworthy and useless members. Moreover, the Medical class, in a missionary hospital, will be a school of religious instruction, and the knowledge of Christian truth there obtained will, no doubt, influence their future lives, and may bring into the Church some who will honor a Christian profession, and be faithful laborers in the Lord's vineyard.

The importance of giving young men instruction in the sciences, of training up qualified practitioners, and of disseminating a knowledge of rational medicine, is so great in a heathen country, that the advantages of a medical school should not be restricted to those who have become Christians.

Partial Course.—One of the difficulties Medical Missionaries have to contend with is that many students do not stay long enough to complete the course of study. This is nothing more than we may expect in the present state of things.

There is no public opinion, requiring any standard of qualification in those who profess to cure disease. It is not strange therefore that students who learn the routine of our mode of treating some of the more common diseases, should be in haste to make money with the new modes of medication which they have seen more successful, than that used by native doctors. It may be stated as a fact that a young man, quick of observation, and possessed of tact for the work will learn in a few months or a year much that will be useful in the treatment of diseases, the nature of which is evident to common observation. And when it is remembered that the native faculty have not only no scientific basis for their practice, but their theories are all on a false basis, and experience therefore can do them little, or no good, it is not far out of the way to say that an intelligent coolie, working about the hospital for a few years, and keeping his eyes and ears open, is as well qualified to practise Medicine as the native doctors, who are ignorant alike of the nature of disease and the virtues of medicines. Such coolies have been observing the practice of physicians who understood both; and students who have had the same advantages, together with the instruction which they get from books, may acquire, in a year or two, a basis of knowledge far in advance of the native faculty, and if they continue to study the books, they must become more efficient and trustworthy as physicians, than the best of the native doctors, who are so highly esteemed for their skill in feeling the pulse, and for their learned nonsense about the hot and cold, the Yam and Yeung, and similar mysteries which abound in their books.

Students, and employes of our hospitals, however short their stay may be, and deficient their instruction, see and learn enough to satisfy them of the superiority of Western practice, and they will help in their own sphere to break down the prejudice against it, and to prepare the way for its general acceptance. An instance may be mentioned of a man (Mr. LEE LAMKWAI) who was for some time in a position to observe the practice of Dr. AYRES, the Colonial Surgeon of Hongkong, and to assist in the care of patients. Having a good knowledge of English, he afterwards became interpreter to H.E. Admiral FONG, an intelligent and progressive official of Kwong Tung. He made use of his knowledge in the treatment of cases occurring in the navy and among the adherents of the Admiral. Last year the Admiral's aged mother fell sick, and, through the influence of Mr. LEE, Dr. MARY FULTON was requested to visit the old lady near Swatow. Dr. F. did so, and spent two weeks in the family, treating successfully the Admiral's mother and other members of the family, and receiving gold medals as testimonials of their high esteem for her personally, and gratitude for her professional skill. Mr. LEE assumed a great responsibility in advising the employment of a foreign doctor in so important a case, and he was exceedingly gratified, that he was justified by the result.

Difficulties and Discouragements of Students.—The prejudice in favor of native practice, together with the ignorance of the people of its defects, on the one hand, and of the superiority of foreign treatment, on the other, will make the struggle between the two systems a long and hard one, and we need not wonder that Medical Students are indisposed to spend much time and labor in becoming masters of the foreign and unpopular system, when a superficial knowledge of a few of its prominent features will answer all their purposes.

As in Europe and America, so in China, the profession will have to work its way up to success, improving the character and qualifications of its members, as fast as higher qualifications command success, and overcoming prejudice and opposition, by years of labor and devotion to new-found truth. In China, however, there is this great advantage: the profession enters on its career with a thoroughly elaborated system of doctrine and practice, and with surgery, we might almost say, brought to perfection in its modes of procedure and adaptation of instrumental appliances. With conditions so favorable, text-books translated, on nearly all the branches, and not far from 100 Medical Missionaries at work, the progress of rational medicine should be rapid, and the time should not be long before the wide prevalence of Western practice should demand well-equipped Medical Schools in the chief centres of population.

In what language shall we teach medicine?—To this question I have but one and a most decided answer. I do not object to the few who are well versed in English studying Medicine in that language, and I strongly approve of physicians who do not know Chinese, teaching medicine to as many students as they can get. Chinese physicians who know well both languages are greatly needed to translate medical books and conduct medical periodicals, but for the great majority of Students, the instruction must be in their own language and their own dialect. Missionaries must give theological training in the language of their pupils, if they would raise up preachers to meet the demands of their ever-increasing work. The necessity is no less as regards those who are to relieve the diseases of their people by rational treatment. We now have text-books in nearly all the branches of study, and a few more years will not only give us text-books up to the requirements of the times, but native physicians qualified to do a great part of the teaching.

Employment of Native Medical Assistants.—Three objects may be aimed at in training native physicians:—

- 1st.—To provide qualified physicians for the masses of the people;
- 2nd.—To train assistants who will be helpers in direct Medical Missionary work.
- 3rd.—To train teachers of Medicine.

The first object commends itself to all benevolent people who know the ignorance and inefficiency of the native faculty, and the terrible sufferings to

which the people are liable in consequence thereof. This object alone justifies the labor and expense bestowed on the instruction of medical pupils. The results at first may not be very great, but the benefits are ever widening and ever extending, until ultimately the whole of this vast Empire shall enjoy the blessings of rational medicine, surgery and obstetrics.

What benevolent man, not to say what Christian, loving his fellow-men as the Blessed Savior enjoins, would not be willing, nay would not rejoice, to contribute to this glorious result? Certainly no Medical Missionary who has witnessed the months and years of preventible suffering endured by so many of his patients, will put a straw in the way of extending far and wide the knowledge of medical science. Neither would any missionary who has mingled with the people, and seen the miseries of men, women and children, which our treatment would ward off or mitigate, object to giving them, the so great a boon.

The second object, that of training helpers for direct Medical Missionary work, naturally commends itself to every physician who has devoted his life to the physical and spiritual good of the heathen. If he can train five or ten or twenty efficient faithful helpers, who will with unselfish devotion give their lives to the good of their countrymen, he will have multiplied by so many fold his own work and extended his usefulness. The accomplishment of this second object does not in the least interfere with the first; on the contrary, the fulfilment of the one is the very best way to accomplish the other. Unfortunately, there are great difficulties in the way of the second object. It is sufficient to mention two:—

1st.—The moral and spiritual qualifications required for Christian native medical helpers are wanting in most of our students;

2nd.—In giving them medical education we give them the means of making money.

The first difficulty stands equally in the way of training helpers for direct evangelistic work, and the large number of failures, in all our missions, of those who have been trained and employed, shows how great this difficulty is. Even in Christian lands there are not wanting examples. But when we add the second difficulty, and place in the hands of our helpers the means of making money, it is easy to see how youth brought up under heathen influences may be led away from the self-denying work we wish them to do, and we need not therefore be surprised at the failures which we deplore in those who have been trained as preachers and teachers.

What then are we to do? Shall we employ helpers who are not such as we approve?

I answer, first, that in the work which is under our immediate supervision, we must employ the most suitable men within our reach. Those who are under our immediate supervision and influence, will improve and become better fitted

for the position of assistants in a work which requires Christian, as well as professional training. In every hospital in China there have been, I dare say, helpers who have been of inestimable value, giving efficient aid in the medical work, and doing much in giving religious instruction to hospital inmates, and influencing them by exemplary Christian lives to accept of the salvation offered to them in the gospel. For such men we are devoutly thankful, and pray that their number may be multiplied many fold.

But in the second place there is within reach of all our hospitals, cities and towns where we would be glad to open dispensaries—and it is often desirable to have dispensaries connected with our out-stations, if we had helpers with the necessary Christian and professional qualifications—men who could be trusted to work in a measure independently, with occasional assistance and superintendence.

I regret to say that I have found among my students very few such men, and the few whom I would have trusted, had not sufficient self-denial and consecration for such work. Some of my students have been employed by other missions and have given satisfaction to the missionaries with whom they were connected.

In conclusion, I maintain that the teaching of medicine is one of the duties devolving on us as Medical Missionaries, and one which will become more important as the appreciation of Western Medicine becomes general and the prejudice in favor of native practice passes away.

In general education, and no less in medical, it is of the utmost importance that Christian influence should predominate and mould the moral character of those who are in future to be the influential members of society, and hence the necessity of Christian men devoting themselves to education in all its departments.

I have indicated briefly the kind of students we would desire to have, but would not reject those who are otherwise suitable, on account of non-acceptance of the gospel.

While I would urge as high a standard of professional qualification as it is possible for our students to attain, I would not, in view of the absence of any qualification required by public opinion, wage a warfare against such of our students as cannot attain to our standard, or do not desire to do so.

And, finally, in the employment of students, we should select the best we can get for assistants in our personal work, but I would place in charge of mission dispensaries, away from supervision, only such as were proved worthy of our entire confidence.

As there was no time for discussion, it was decided to make these subjects the first order of the day on Tuesday afternoon; also in future to meet at 2 instead of 3,

The following resolution was proposed by Dr. MATHEWS, seconded by Dr. HODGE and carried :—"That 40 copies of the next two Numbers of the Journal be forwarded to the various and most influential Journals of England and America, so as to create an interest in the proceedings of the Medical Missionary Association of China." The Secretary suggested that he make arrangements for every member signing the Constitution according to rule, which was agreed to.

SECOND DAY.

(Tuesday, May 20th.)

The President H. W. BOONE, M.D., in the Chair.

Secretary, The Rev. S. R. HODGE, M.R.C.S., L.R.C.P. (Lon.)

The routine business being disposed of, the adjourned discussion on Dispensary Preaching was then re-opened by Dr. MACKLIN, who said that there are some medical missionaries who were not trained preachers, yet were anxious to shew their sympathy with the work: and, although they might not be able to preach a regular sermon, they could explain a parable or miracle and offer prayer. Dr. KERR said that in the Canton Hospital they had passed through nearly all phases of the question. In the early days he had no Christian assistant and had to do the best he could. The work, however, has since become more systematized, and now there is a school for the women and children among the in-patients, who can there daily study Christian books. Lady missionaries give very efficient personal instruction; 150 to 160 were now under instruction in this way, and there is quite a number of conversions. Work among the men is less systematized but easier than amongst the women, and "Our religious work is a great blessing." Dr. REIFSNYDER.—The experience of Dr. Kerr is, no doubt, that of most medical missionaries. Crowded as we are with work immediately upon our arrival, talking directly to Dispensary patients necessarily devolves upon an assistant, either native or foreign. At the "Margaret Williamson Hospital" a most gifted Chinese woman talks with the patients, and thus many spirited discussions are started and much of the truth as it is in Christ Jesus disseminated. Let the medical missionary surround himself or herself with Christian assistants; and if the doctor cannot say much, he or she, by leading a godly life, can do a vast amount towards illustrating the gospel and spreading it amongst the people. The PRESIDENT.—Dr. Park had very much under-estimated the number of people reached in the dispensaries. He would put the number down as quite a

million, because the relations and friends of the patients all came under the influence of the Truth. We are all agreed that medical missionaries should, as far as in them lies, devote themselves to religious and medical work. In this work, however, there is a *personal equation* which we must not forget. Some have a greater gift of showing sympathy than others. A medical man has to go through a careful training for his profession; and a medical missionary who is purely a doctor, and has not studied theology, needs a careful training in divinity before he can make a good minister. No mission hospital is doing all the work it could do, unless all the missionaries of that mission take a personal interest in the hospital and give all the help they can. Let us make our brethren welcome and urge them to come. The ladies of the mission should take the women under their special charge, and encourage the native women of the church to take an interest in the hospital. We should attend more to the comfort of the better class of patients, both in the out-patients and in-patients. Dr. TAYLOR asked for information as to charging according to the actual cost of the medicines or merely a nominal charge. The PRESIDENT.—Whenever a charge at all was made it was the full price of the medicine. Dr. LYALL had a class of applicants for baptism, and invited the attendance of patients, but that does not necessarily imply baptism, and he is very careful to keep them a long time before they receive baptism. He recently baptized a man who had been a member of the applicant class for 10 years. Dr. HODGE personally shrank from using anything like pressure to compel the patients' attendance at services, but used all his influence to lead them to the Word.

P A P E R .

I.—By W. E. MACKLIN, M.B.

Itinerant Medical Work.

I believe itinerant medical work has a place, even if not the most important. When we think of itinerant medical work, it is natural that visions should arise in our minds of the quack, who goes about at home peddling his "cure-alls," or even having regular visits to towns to gull all the gullible of the surrounding country. It is becoming somewhat common in America, at least, for certain regularly qualified medical men to sacrifice their dignity and honor, travelling about the country advertising to cure all forms of disease. The incentive in this, of course, is the money to be made out of it. We do not wish to introduce any form of quackery into China, and although itinerations are less satisfactory than hospital and dispensary work, yet in the present need we cannot do without them.

It would be folly for a medical man to come to China to do itinerating work solely or perhaps even mainly. A reputation must first be acquired, before his services would be much required or his treatment followed. This could be perhaps gained through itineration, but it seems to me that the most satisfactory way would be to open a dispensary and hospital in some large centre, and as the physician's name became known he could take trips into the surrounding towns and villages, taking a medical chest along, or depôts of supplies could be kept at regular stations, and visits be made to these places. Important cases, operations, etc., could be advised to go to the hospital for treatment. Trained native agents could take charge of these branch dispensaries.

Mr. JOHN HUTCHISON, at the London Conference, made a valuable suggestion for the carrying on of itinerant medical work. He proposes fully-trained men for branch dispensaries, but evangelists partially trained in medicine to go among the villages healing the sick and preaching the Gospel, as there are so many cases malarial, etc., so easily relieved.

He says, "I have put this plan to the test of practical experience in my own field of labor. My mission sphere comprises the whole of the Chamba State, situated in the bosom of the North-Western Himalayas. A dispensary and hospital have been in existence in the capital for twenty years, but it is only recently that anything has been done for the outlying parts of the State, which are very difficult of access owing to the mountainous character of the country. Beyond the outer ranges of snowy mountains, and bordering on Western Thibet, there is a very interesting and beautiful valley called Pangti. I have long had a deep interest in the people of that valley, and some years ago I sent one of our native evangelists to labor among them. He had been in charge of the Leper Asylum of the Mission to Lepers in India under me for a considerable time, and had become pretty familiar with the uses of the simpler remedies, and the treatment of ordinary forms of disease, and therefore I had no hesitation in entrusting him with a small medicine-chest. He found it of the greatest service in carrying on his evangelistic work. The people were most grateful for the help he was able to render, and he was thus enabled to carry the Gospel to every house in the Pangti valley, receiving everywhere a most cordial welcome. In the beginning of every summer, this noble servant of Christ, one of the most devoted native workers I have ever known, takes his departure from Chamba into the inner Himalayan wilds, and we often hear nothing of him for months. He has to cross and recross a lofty, snowy range higher than Mont Blanc, to traverse mountain-paths which are always difficult and dangerous, and to undergo much toil and hardship. His mode of work is to take up his abode in a village for a few days, or even for a week or two, and make himself quite at home with the people. All day long he is employed in visiting the sick, preaching to and conversing with the villagers, exhibiting and explaining the Bible pictures he

always carries, selling and distributing the Scriptures and tracts to all who can read, and himself reading and expounding the word of God to those who gather around him. I have myself on many occasions when itinerating with him, had opportunities of witnessing the most gratifying evidences of the esteem in which he is held; and as the result of his labours the evangelistic work in Pangi is now in a most hopeful condition." This seems a most interesting method of work, and it would seem wise to have many of our native helpers trained, so as to be able to cure minor ailments. Objection may be made that it is a lowering of the medical art, but we are not sending men out to make a pretence of being medical men, but merely fitting our native preachers to act as Good Samaritans wherever they preach the gospel. It is difficult for a kind-hearted man to resist the appeals made to him for help, and it is a joy to relieve even one sufferer. There is no evidence that the Good Samaritan was a physician, yet he took upon himself the responsibility of helping an injured neighbor. Much good medical work has been done by missionaries who have carried medical chests along with them on their itinerations. No missionary would treat cases if there was a properly-qualified medical man at hand, but there is such a lack of medical men that it is difficult for a Christian man, whenever he travels, to resist the temptation to do what he can for the suffering all around him. How many opium-poison cases have been relieved by the timely mustard, ague by the quinine, what wonders sulphur has done, and carbolic acid for sores, etc. Yet these remedies can be used without any great skill. All missionaries should try to imitate the example of Him, "who went about doing good." A very large number of diseases can be relieved with very little skill, and in the present scarcity of medical men, preachers should carry drugs.

Methods :—

- 1st.—The medical missionary making visits from his central hospital to neighboring towns and villages carrying supplies.
- 2nd.—Branch dispensaries conducted by qualified native helpers, and visits made by the medical missionary to oversee and manage.
- 3rd.—Foreign preachers taking medicine-chests on their itinerating tours to do the Good Samaritan.
- 4th.—Native evangelists trained to relieve common ailments and carrying medicine-chests, so as to preach the gospel and heal the sick.

Great attention should be given by medical missionaries to teaching, and there should be more united efforts of medical men of different denominations. We must try and secure the medical teaching of China to the Church, and not allow, as in Japan, this great lever, in elevating a people, to get into the hands of unbelievers. There are sufficient medical men in China to combine and open

several large schools in large centres, and in a few years supply China with physicians, as the Government schools supply Japan.

Dr. KERR then read the following letter from Dr. PECK :—

“Providentially absent from China, and my beloved work there this year, my thoughts often turn toward it. And as it has been my privilege for two months past to travel through the great continent of India, from Cape Cormorin on the South to Bengal and the Punjaub on the North, missionary operations have, of course, formed a part of my eager observation, especially in my own department.

“I will, as I am unable to be with you in person, allow myself the pleasure of sending a line of greeting with a few remarks on what I have seen here.

“India, like China, is a great country, full of diversity and strange contrasts, stretching through nearly 30 degrees of latitude. With lofty mountains, dense forests, vast barren plains, great rivers, and again treeless and streamless deserts. The wonderful variety in its physical geography is matched in the ethnography of its people. The tropical luxuriance of Travancore and the whole Malabar coast, famous still for its palms and its spices, its ivory and its sandalwood, as it was in the days when the ships of Solomon traded there, is not more different from the barren plains of the Dekkan or the Himalayan passes than are the characters of the simple Turanian tribes still left in the hill fastnesses. The great Diavidian race of the Tamils, the cultured and plastic Aryans, the hard-hearted and cruel Moslems, all relics of successive waves of conquest that have swept over the land even from the dim prehistoric past.

“Naturally, the presentations of religious truth to these different classes, must vary according to the character of the people, but everywhere I found the same unvarying testimony to the value of medical missions in reaching the hearts of all sorts and conditions of men and women. I do not see that in any part women are kept more strictly secluded than they are among the higher classes of the Chinese, and among races as different as the Tamils and the Brahmins, women seem to mingle freely and openly in society. But among the Mohammedan races, and those who have adopted the custom of exclusion of woman, introduced by the Mogul invaders, ladies as physicians are able to find entrance to the harems and zurwans, to be obtained in no other way.

“Itinerant medicine is a favorite system with some, at times, particularly in the south of India and in the Dekkan, where touring in the winter season is pleasant, and access to the frank and unsuspecting village populations free and easy. The missionary encamps on the outskirts of a village, in the shade of a grove which may invariably be found, and either sleeps in his bullock-cart or pitches a tent, and, so far as my knowledge goes, never expects or receives annoyance from the people.

“It is the practice with some to proceed into a village early in the morning, and, by ringing a bell or singing in the streets, to attract a congregation which

will listen to a little preaching, and join in the singing as soon as they catch the refrain of a hymn. In this primitive and pastoral relation the giving-out of medicine forms an additional bond of sympathy, and often proves the concrete evidence of the human uses of Christianity that either begins or completes the conquest of the heart.

"I imagine you, my dear friends, who listen to these words, sighing for such a place, or thinking, with a quizzical smile, of the results which would follow the adoption of such tactics in your parishes.

"I have often enquired of my friends, the medical missionaries whom I have met, their opinion of the relative value of itinerant as compared with hospital work, and while opinions as to the absolute value of itinerant work varied, the unvarying testimony has been that more solid results are gained in hospitals, both scientifically and spiritually.

"It may be that here in India the mission hospital is at a disadvantage, for there are fine civil hospitals all over the country, attended by men of the highest culture and attainments. Hardly any other one thing has astonished me more than the fine hospitals which I have found, not in the great port cities alone, where they might be expected, but in what seemed to me to be most out-of-the-way places. And the niggardly gifts of the Church of Christ for this benevolent purpose cannot begin to compare with the magnificent palaces of healing, erected by the Government or by private munificence, for there is many a costly pile erected by a Hindoo or Parsee.

"In China medical missions are as yet the highest expression of the active militant charities of the Christian world. Famine relief comes, bountifully but spasmodically, whenever there is a strong appeal, and does its beneficent work; but the steady constant presence of its mission hospital, like the attraction of gravitation, is constantly drawing men toward the great centre.

"One thought more with regard to the difference between India and China. Both are great countries, with about 250 millions of people of various origins, but the parallels soon begin to diverge.

"As an animal, man has been defined to be "a stomach, provided with organs." Among nations, China may be defined to be—a stomach, without organs.

"Into this capacious paunch have been poured the various tribes and races which have gone into its teeming population, and, it has quietly digested them. Jew or Mohammedan, Mongol or Tartar, whatever they were to begin with signifies little now, for different as are the dialects and the peoples of the north and the south, they are all Chinamen. Even of the last mouthful, what is there left of the Manchū but the quene? Hair is insoluble in the gastric juice. Did I say it had digested all? It is incorrect. I should have excepted the Anglo-Saxon; that indigestible morsel has given it the only colic it ever had.

"And times are changing. Into its slow consciousness is coming the conviction that the polypoid stage of existence cannot last forever. It must be provided with organs. There must be a head and arms and legs, and they are budding.

"We can see the slow process of evolution going on, and believe that God has a high purpose for this great people.

"May it grow up in all things unto Him which is the head, even Christ."

DISCUSSION.

Dr. HODGE.—From a medical and surgical standpoint the value of itinerant work was very small, yet he recommended all missionaries to occasionally engage in it as a help to their own spiritual life. The plan he adopted was to fix on some village where there was some one who would open his house, to live there for a week, working from it as a centre, visiting the neighbouring hamlets during the day—preferably, of course, those to which you are invited—and in the evening holding services for the neighbours. He would always, when possible, take a minister and two or three native Christians with him. He would visit the same place again and again until the neighbourhood was thoroughly evangelised, and then open a permanent dispensary. Dr. WATSON.—In their mission they had been able very successfully, to combine lay and professional medical work. When he arrived at his station, five years ago, he found several of the brethren engaged in itinerant medical work. He himself had learnt much of value from some of them as to the best method of carrying it on. He himself confined his attention to the cities, his ordained colleagues doing the country-work and sending their difficult cases to him. Instead of itinerating in places which he might never visit again, he had fixed upon two large cities, one north and one south of his hospital, which he visits on fixed days every month. Dr. MORLEY could not reconcile Dr. HODGE's two opening statements. He thought that if a medical man required spiritual revivement it would be better to go on a purely preaching tour than to do medical work, the value of which he knew to be "small." He could imagine the presence of the doctor being a hindrance to the preacher. Thought that the preaching ought to be done by the doctor, and recommended the leaving at home either of the medicine-chest or the minister. Dr. HODGE pointed out that few medical men would feel justified in refusing to help the sick which they see, and expressed surprise that the medical man should be thought a hindrance to the minister. Dr. TAYLOR.—In his experience, evangelists were glad to have him with them. He obtained them audiences. Dr. HUNTER.—One who is willing to subordinate the medical to the evangelistic work. Itinerating offered a fair field of usefulness. He intends opening a new station much on the plan suggested by

Dr. HODGE. Dr. WHITNEY hoped to open up the country surrounding his hospital on the same plan. Dr. TAYLOR.—In Peking little had been done in itinerating; but having two physicians attached to their hospital, they had fixed upon certain places, each to be visited three times a month on regularly-known days. They took a shop on the main street as a consulting-room, and hung out their sign. They hoped by steady and persistent work to reap fruit. Dr. LYALL.—Dr. Gauld in previous years had regularly visited two towns once a week for a number of years. At first very hostile, the people at length became friendly, but no spiritual fruit followed. He thought that men of some experience were needed to do itinerating work successfully, for it is easy to do much harm. Dr. FULTON.—She had to be very strict in refusing to see men, for she found that being lax on this point precluded all idea of her seeing the better classes of women. She referred to Kwang-si Province, where there is no foreigner resident. Her brother had tried for 10 years to obtain a footing in the province, and at last succeeded through her healing a little boy whose father in gratitude offered them a house. They used the house as a hospital, but it was destroyed during the military examinations. An occurrence during that riot seemed to point a lesson of carefulness in work in the interior. One of her students, who had studied medicine under Dr. Kerr, possessed a skull. In the yard was a tub containing a quantity of material for making soap. When the hospital was destroyed the two things were found and connected, the report being spread that they killed people, and boiled down the body. The presence of the skull allowed no contradiction.

The Secretary read a letter from Mr. J. Fryer.

P A P E R .

2.—By S. A. HUNTER, M.D., *Tsi Ning Chou*.

Medical Nomenclature.

The nomenclature of any science is a true exponent of its condition and progress. Every advance in scientific knowledge has been indicated by a more thorough and accurate terminology, as well as by a higher and more perfect classification. Accurate observation is no more essential for the discovery of new facts, than a correct nomenclature is for their preservation and transmission. As thought without language is fettered, so is science hampered without a proper vehicle for its expression. Science and its nomenclature have of necessity grown up together in the Western world, the one the handmaid of the other. But here in the East we meet a new factor in the problem. We desire to introduce the different departments of science, already in a high condition of

development, among a people whose language has not been developed along these lines, and which in its present condition is inadequate for their proper expression. How best to meet this difficulty is a question that has engaged to a greater or less extent the attention of every thoughtful mind in China. Shall we attempt the difficult task of expanding and developing the native language, subject to its genius and spirit, in order to meet the new conditions that have arisen, or shall we seek some better medium of communication for scientific thought? The answer to this question is by no means uniform, or definitely settled. It is a subject that requires much careful thought and mature consideration, and its decision is fraught with important consequences to our future work. Admitting the necessity of educating a certain proportion of pupils in a foreign tongue, in order to bring them abreast with the latest researches of science, other questions still remain to be determined. How large a proportion should be so educated? How much should be taught in the native and how much in a foreign language? Or should not all such teaching be *bi-lingual*, in order that the pupil may be able to impart as well as to receive, to transmit as well as to retain, and thus become, as it were, a distributing centre of Western thought? There are some who would boldly cut the gordian knot and teach all science in English, thus leaving the great mass of Chinese literature untouched by the leaven of modern thought. But this plan, I am convinced, is neither wise nor philosophical. Aiming at higher results in the individual, it neglects the multitude. It sacrifices the many for the few. It hinders the nation's progress for at least a century; and delays the hour of national emancipation from the deepest intellectual thralldom that the world has ever seen. History has shown that Christianity can indeed destroy idolatry, but that science only can uproot superstition. While Christianity provides moral force and spiritual power to regenerate the nation, we must look to science to strike the deathblow to the imperious sway of the Sages. Buddha and Lao Tzu are indeed destined to fall before the sword of the Christian polemic, but Confucius and Mencius will just as surely be overthrown by the keen lance of the scientist. So Christianity and science should work together hand in hand for the nation's redemption. But if China as a nation is to learn anything of science in our day, it must be through the language of the people. If the mountain will not and cannot come to Mohammed, then Mohammed must and should go to the mountain. Fortunately, most of the earlier laborers in China took this view of the matter, and consequently we now have a great number of Chinese scientific terms of no small utility and importance. What is required at present is not so much the invention of new terms, as the revision and unification of those already in use, looking to the native scholars of the future for such modification and improvement as may be required. The present lack of agreement in the use of terms is a serious drawback to all further

progress. This obstacle has long been felt and acknowledged by all, but as yet no efficient remedy has been provided. The general acceptance of any system of nomenclature that is uniform and complete, even if not the very best possible, is infinitely to be preferred to the divided and inconsistent usage of the past. If during this Conference, we shall be able to agree upon and adopt such a system of nomenclature, in the various departments of medical science, or to provide for such a uniform system in the near future, we shall have taken a long step in advance of the past, and conferred a real and lasting boon upon all who come after us.

A concise discussion of the general principles, that should govern the Nomenclature of Drugs and Diseases in the Chinese Language, is all that lies within the scope of the present paper. For convenience of description, I will consider drugs under the two general heads of Mineral and Vegetable. The few drugs derived from the Animal Kingdom present no particular difficulty, as descriptive terms are easily and naturally applied to them. In the department of Mineral Drugs, comparatively a limited number are known to the Chinese. Of those which are known, such as Borax, Arsenic, Sulphate of Iron, etc., the use of the native name with the addition of a chemical term as a synonym, to indicate their component parts, is apparently sufficient. But owing to entire ignorance of the first principles of modern Chemistry, the great mass of drugs in use in the west are entirely unknown in China. The introduction of these drugs has necessitated the invention and use of new names by which they may be designated. The rule hitherto has commonly been to employ the Chemical terms. To this, there are serious objections. The chemical terms are not only cumbersome and inconvenient, because they contain numbers as well as symbols, but they are difficult to remember. To obviate this objection the terms have been somewhat shortened, and thus they are neither chemically accurate upon the one hand, nor sufficiently concise upon the other. Besides chemical terms have their proper sphere and use, and they should be preserved intact for that use alone. They are not names at all in any proper sense; but formulæ exhibiting the chemical constituents of a substance, and only a necessity which was barren of invention has compelled their use. How much simpler and better to introduce a system of Commercial names for common use, which shall indicate the general composition of the drug, while avoiding the complexity of a full chemical notation. The same causes which gave rise to commercial names in the West will sooner or later inevitably effect the same result in China. But if left to the exigencies of trade and the fortuity of circumstance, this will almost certainly beget a series of names, which will lack the barest hint of chemical significance. It is our prerogative to forestall this untoward result by introducing a system of names which shall be simple, convenient and significant. It is not likely, indeed, that any action of ours will

prevent, nor is it desirable that it should, the growth of common or vulgar names for many drugs. Common names, based upon some real or fancied peculiarity, must and will spring up among the people, but they should not be accorded the first place in a scientific list. In fact, all the conditions of the case will only be fully met when we have three sets of names—a chemical name for the laboratory, a commercial name for the drug-shop, and a vulgar name for the market. It lies with us to introduce the commercial name for the uses of our profession, and leave it to the inventive genius of the Chinese race to provide common names for the people.

The preparation of a system of commercial names is not so difficult as at first it might appear. To illustrate,—if for this purpose we accept the present commercial names of the mineral acids, and combine them with the names of the various bases, all their salts can thereby be readily and clearly indicated. Thus, if we adopt *Ch'iang Suan* (强酸) "strong acid," for all the higher acids ending in "-ic," and *Yang Suan* (養酸) "oxygen acid," for all the lower acids in "-ous," (where there are two oxacids), and if we name the vegetable acids according to the sources from which they are derived, retaining *Suan* (酸) "sour" as the generic name for acid, we can apply the same principle of combination to the names of all the acids and their salts, and thus arrive at a simple and adequate equivalent of the commercial names now in use in the West. For example, by this method we have *Huang Ch'iang Tung* (磺强銅) for Sulphate of Copper, (indicating that it is composed of *Huang Ch'iang Suan* (磺强酸) Sulphuric Acid, and *Tung* (銅) Copper), instead of *Tung Huang Yang Ssu* (銅磺養西), the equivalent of CuSO_4 , which is properly Anhydrous Sulphate of Copper, and not the crystallized form in common use. According to this nomenclature, not only is Sulphate of Copper *Huang Ch'iang Tung* (磺强銅), but Sulphate of Iron is *Huang Ch'iang T'ieh* (磺强鐵), Sulphate of Sodium is *Huang Ch'iang Lu* (磺强鋤), and so with every other sulphate of whatever kind. Again, starting with *Huang Yang Suan* (磺養酸) Sulphurous Acid, we have *Huang Yang Lu* (磺養鋤) for Sulphite of Sodium, *Huang Yang Shih* (磺養石) for Sulphite of Calcium, and so with each sulphite in the whole list. Beyond this the "Sub-" and "Per-" salts can be indicated by the prefixes *Shang* (上) and *Hsia* (下), as perhaps the nearest approach to the English equivalent. Thus, Persulphate of Iron becomes *Shang Huang Ch'iang T'ieh* (上磺强鐵), and the Subsulphate, *Hsia Huang Ch'iang T'ieh* (下磺强鐵), and others in like manner. In the case of the Oxides, Chlorides, Iodides, Sulphides, etc., the use of the chemical name, omitting numerals, and adding a descriptive term where more than one exist, will be found quite sufficient, as, for example, *Hang Kung Tien* (紅汞碘) Red Iodide of Mercury, *Ch'ing Kung Tien* (青汞碘) Green Iodide of Mercury,

etc. In regard to the vegetable acids, common usage has already determined that *Ning Méng Suan* (檸檬酸) shall stand for Citric Acid, *Kan Sung Suan* (甘松酸) for Valerianic Acid, and so on through the list. In accordance with the principle of combination already stated, Citrate of Potassium will be expressed by *Ning Méng Hui* (檸檬銹). Valerianate of Zinc by *Kan Sung Hsing* (甘松鎰), and others in a similar way. Such a system is not only in accord with the genius of the Chinese language, but is easily acquired by students, and answers all the purposes of practical pharmacy. At the same time, the full chemical formulæ should be introduced in all books of *Materia Medica*, for more perfect accuracy of description. The chemical terms already introduced, especially those by Dr. KERR, are admirably suited for the purpose. They are as capable of accurately representing a correct chemical notation as any symbols in use in the West. We do not need any change in this direction, neither is any desirable. What is needed is to fix upon one set of terms and adhere to them scrupulously. That the same Chinese character should in one Chemistry represent a particular chemical element, and in another Chemistry stand for a totally different element, is as culpable as it is negligent. If we can do nothing more while we are met together, let us settle once for all the characters to be used henceforth to indicate the chemical elements, and thus avoid the puzzling and unseemly incongruities of the past.

In the department of Vegetable Drugs, it will be found convenient to divide them into three classes—those already known in China, those that are represented by plants of the same species, but having less or no medicinal value, and those that are entirely unknown. Those already known require only their native names. Those of which similar species exist will require the addition of a qualifying adjective, such as *Yang* (洋) foreign, or some other word indicating a peculiarity of the species in question. With regard to the third class, those entirely unknown to China, there seems to be considerable difference of opinion as to the best terminology to be employed. Most translators favour a transliteration of the foreign terms. The gifted PORTER SMITH has strongly opposed this, and favoured the coining of Chinese descriptive names, as far as possible, along lines analogous to those in use in native books. Notwithstanding this is such an attractive theory, history and philology are both against it. It is the very question which the translators of the Chinese Bible had to meet, with regard to proper names, and they met it in accordance with philological precedent, just as Mohammedanism and Buddhism had done in the ages before. Nor are the records of Chinese medicine without precedent in the same direction, as the pages of the *Pên Ts'ao* (本草) fully testify. It seems to be the rule, and not the exception, that drugs have carried their native names with them into every other land, and why not into China? The invention of native names like "*Hai Ts'ung*" (海葱), or "Sea Onion," for

Squill, so far from being an easy task, would more likely prove futile and confusing. There is just as much meaning in *Shih Kuei Lu* (士圭廬) to the Chinese ear, as there is in Squill to the foreign ear. They alike represent the *σκιλλα* of the Greeks. If our professional standing rested to-day upon our knowledge of the original meaning of the names of drugs, rather than of their source and uses, it is to be feared that names like Jaborandi, Kino, Sabadilla and others, would prove a source of discomfiture to many a candidate for professional honours. But we must agree to use one transliteration only, and that the best and shortest that can be properly made. The coupling together of an indefinite number of meaningless syllables to represent all the sounds in a foreign word cannot be too strongly reprehended. All transliteration should be limited to three or at most four syllables. A good and euphonious transliteration will in course of time become as much a part of the Chinese language as *Mu Yüeh* (沒藥) Myrrh, and *Ya Pien* (鴉片) Opium, are to-day. It has indeed been objected, that the same transliteration will not suffice for all China; that local pronunciations differ too widely to permit the use of one set of names, etc. But it should be remembered that uniformity and euphony are of far more importance than accuracy in representing the foreign sound. Nor are the differences of pronunciation so great as have been represented. There are many names now in use which were coined in the South, and yet which in the Northern dialects sufficiently approximate the foreign sound to be quite intelligible. If one set of names is used for native drugs throughout all China, we are not likely to improve upon this by introducing several for foreign drugs, merely for the temporary convenience of the foreign physician. No doubt much can be done in the future by the researches of the botanist to simplify the terminology in this department. But we cannot afford to await the slow and laborious elaboration of complete botanical lists from the Chinese standpoint. Over a hundred dispensaries now in active operation demand of us a uniform working vocabulary sufficiently full and explicit both for the requirements of medical practice and the growing demands of Chinese trade. These requirements we can and should meet and meet them at once, trusting to the future for such improvement as the advance of science may make possible. With a full list of commercial names, similar to those which have been outlined in this paper, providing for mineral drugs, names of general chemical significance, and for vegetable drugs, either a modified native name where possible, or a good transliteration of the foreign name, all the requirements of the present time will be fully and efficiently met. Let us not be deterred from making the attempt, by the apparent short-comings of this method. The completeness of Western terminology is the growth of centuries. It is not to be expected that any system we adopt will either be free from error or incapable of improvement. But we can lay a sure foundation for future progress, and

indicate the lines along which the now scattered forces of laborers should unite and exert their strength.

The Nomenclature of Diseases next claims our attentive consideration. We will find much to be done in this important field. Although many diseases are unknown to the Chinese, owing to their lack of anatomical knowledge, yet it seems fairly evident that we have not given them sufficient credit for the knowledge of disease which they have. There is so much that is absurd in Chinese medical literature, that few persons have the patience or inclination to gather up the few grains of truth and wisdom that lie scattered through it here and there. Nevertheless there is quite enough to amply repay a careful perusal. Too little effort has been made to identify native names of disease, and too great a tendency exhibited to multiply terms needlessly. The existence of a native name, identical in its uses with the foreign one, has every reason in favour of its adoption; unfortunately, however, many Chinese names are vague and indefinite. But this fact is no adequate reason for discarding them altogether. Here we meet a question similar to the Term question in theology. Is it better to take the native term, with its indefiniteness and liability to be misunderstood, or to make a new term entirely? The only safe answer to this question is, that we need both, and cannot afford to discard either. It is without doubt often desirable to introduce new terms, descriptive of the nature of diseases as known to the modern investigator. And yet, even in our own land, how persistently the popular names hold their own against the more technical ones of the profession! It seems therefore proper and justifiable to maintain at least two names for most diseases, one for the book and the other for the bedside. Wherever a native name can be used it should have the preference. Even where the native term lacks definiteness, we can make it definite by description and definition. The Chinese classification of disease, based wholly upon external observation, and mostly upon wrong conceptions of the exciting cause, must necessarily differ widely from that of the rational method based upon pathological research. Often where we recognize but one disease, they divide it into several, and where we find several nearly allied diseases they have but one name for all. Thus their names are often either wider or narrower than ours, some of them corresponding very closely with the terms in use in the earlier English medicine. Then again, in course of time terms may change in their use with them as with us. But their best books being written centuries ago, the book and common use are thus sometimes not identical. For example, the disputed term *Shang Han* (傷寒), as it occurs in the *Yi Tsung Chin Chien* (醫宗金鑑), is apparently the equivalent of our word "Fever;" but in common use among native physicians, at the present time in North China, it appears to mean any simple, continued, non-contagious fever—commonly Typhoid. That is to say, every case of Typhoid Fever would be pronounced *Shang Han* (傷寒) by a

competent native physician. But not every case of *Shang Han* (傷寒) is Typhoid Fever. Therefore, unless we use the term *Shang Han* (傷寒), at least as a synonym for Typhoid, the native student will be at a loss to know what disease is being described. However well the terms *Tu Fu Jih Chéng* (吐腹熱症), or *Hsiao Cháng Huai Jih Chéng* (小腸壞熱症), may serve to describe the seat of anatomic lesion, they afford no clue to the Chinese mind by which the disease can be connected with any case of disease ever known before. So also the term *Wén Yi* (瘟疫), a name used for any contagious fever, is always applied to Typhus, although not every case of *Wén Yi* (瘟疫) is Typhus. The term *Wén Yi* (瘟疫), therefore, is only by metonymy used for an epidemic in general. It is only properly applied to a contagious fever. If we accept *Wén Yi* (瘟疫) as one synonym of Typhus, with a modifying clause, we shall have made great headway in explaining the nature of that disease to a native pupil. Accepting, therefore, the best of the names coined for disease by Western practitioners, we must yet seek out the native synonym and modify it by description and limitation. Without such native names, our foreign translations will be in a great measure unintelligible, whereas by their use, not only do the higher technical terms of Western medicine become intelligible to the Chinese mind, but we ourselves become able to use and appreciate their terminology of disease. Unless we know something of native terminology, we must always appear to a disadvantage, when called upon to treat the educated classes of China.

In the department of skin diseases, and in fact in all diseases which the Chinese define as *Wai K'ao* (外科), or external, we find a fuller nomenclature. While giving fanciful names to Abscesses, Carbuncles, etc., according to their location, yet they are not destitute of generic names which answer the purpose of description fairly well. By accepting a generic name we can often apply a qualifying adjective by which we can introduce our classification of disease, while retaining in the main a native term. For example, the word *Hsüan* (癬) is the equivalent of our old phrase, "a scurf of the skin." This term having so wide an application can be made the foundation for several other more accurate and definite terms: thus, *Yang Hsüan* (癢癬) "Itching Hsüan," for Prurigo, *Lín Hsüan* (鱗癬) "Scaly Hsüan," for Ichthyosis, *Shu Pi Hsüan* (蛇皮癬) "Snake-skin Hsüan," for Pityriasis Rubra, *Pai Hsüan* (白癬) "White Hsüan," or *Niu Pi Hsüan* (牛皮癬) "Ox-hide Hsüan," for Psoriasis, etc. Several of these names have been incorporated in foreign translations, and are now in common use, although I have not found them in any native work.* By

* I have since found most of these names, with many others of interest, in the *Tung Yi Pao Chien* (東醫寶鑑), a Korean medical work written about a century and a half ago.—S. A. H.

the exercise of patient enquiry and a little ingenuity, a very respectable vocabulary of diseases can be made out from Chinese names alone. The phonetization of foreign names of disease is a wholly useless task. It is a very different question from that of the names of drugs. Such drugs as we introduce from foreign countries have been hitherto entirely unknown; but most diseases already exist in China and are known by some name, however indefinite or inapt. To identify, classify and improve the native names of disease, as well as to simplify, unify and render complete the names of foreign drugs and preparations, should be our resolute aim and constant endeavor. By united and continuous effort the present imperfections of medical nomenclature will gradually disappear, and our labour will be crowned with final and complete success.

In conclusion, let me ask you to remember that we are working for the *masses* of China. Here and there may indeed be a fortunate one who is favoured to drink from the fountains of Western learning at their native source, but the untutored millions of this nation look to us, the missionary workers, for instruction in all those departments of knowledge, which, together with the Gospel, are the glorious heritage of our race. True science, like true religion, goes forth, torch in hand, into the bye-ways and hedges, into the lanes and alleys, and extends its numberless blessings to the poor and the unlearned as well as to the gifted and the great. In this vast enterprise the individual worker may indeed be lost sight of, but the great work still goes on apace. As one of our leading missionaries has well said: "We are just like so many piles sticking down in the mud, over which to build a highway for God." Over our buried heads the highway will be builded, and the mighty train of advancement and progress will thunder on, long after we are forgotten. Or, if I may be allowed to change the figure, we are like coral workers far down in the sea, each of whom shall lie encysted within his own life-work, and surrounded by the marks of his own toil, while over our heads shall be reared, by the sacrifice of a multitude of lives, a mighty island, to bear upon its summit forever a lighthouse for God and for humanity. Blessed is he who hath a part, however humble, in this glorious work!

DISCUSSION.

Dr. MORLEY said that, as far as he had seen, the natives objected to transliterated terms, and that he suspected the reason foreigners preferred them to be—that they are easier for them to remember. Dr. DOUTHWAITE.—Transliteration should be avoided if possible, but that it is not always possible must be admitted. Dr. PORTER noticed that some of the chemical names in Dr. Hunter's list followed the old method of writing; wished to know whether the more modern system could not be used, as Copper Sulphate instead of Sulphate of Copper. Dr. HUNTER.—Reference is here made to commercial, and not

chemical, names; the correct principle of nomenclature in Chinese is that the important word be last. That word here is "copper." We want to convey to the mind the idea that the substance was a copper and not that it was a sulphate. He had been working on the subject at an average of three or four hours a day for seven years, and advocated the formation of a Committee of five or seven which should use all the work done in the matter of nomenclature, unifying it and placing it on a common basis. For facility of work each man should take one department.

Moved and seconded that a vote of thanks be presented by the Association to the gentlemen who had read papers on the subject. [It was then agreed that the morning's papers not read should be taken up in the evening at 8 o'clock.]

(Tuesday Afternoon, May 20th.)

The President H. W. BOONE, M.D., in the Chair.

Secretary, The Rev. S. R. HODGE, M.R.C.S., L.R.C.P. (*Lon.*)

Dr. PARK of Soochow offered prayer.

The adjourned discussion on the training of medical students was then taken up.

Dr. HODGE remarked that he had long been thinking on the subject, but had not been able to do much. He thought that four years should be the minimum, but preferred five years. The tutorial system is best for the Chinese; recitations are too much on native lines, and we wanted to make the students think; but no one man can do the necessary teaching, all of which should be in Chinese. He suggested the establishment of central schools, say at Canton, Nankin and Pekin, and that the Association fix a course, appoint examiners and grant diplomas, which we might hope to get officially recognised. He was afraid that China was not ready for native practitioners using foreign methods, and that they could not make a living without giving up their Western notions. He would train them to conserve our own work, and use them in opening new stations. Dr. WATSON testified that such men could make a living among their own countrymen, and that if they did nothing else than remove superstition and deified-ignorance, they did a good work. There is a good demand for such men. Dr. MORLEY.—Dr. Hodge's doubt was not whether these men could make a living—we had plenty of evidence about that—but how far they could carry out the principles of their training, especially with regard to surgery. Could a native, unsupported by foreigners, afford to risk a death after a surgical operation? Dr. TAYLOR.—A native can easily do minor surgical operations without risk. He

knew of two students practising on foreign lines and making fortunes. One of them lost a patient after incising a carbuncle, and all that happened to him was having to go into seclusion for six months. Dr. PORTER knows four Chinese students who are earning a good living; one had practised in the country, using native medicines, but doing some surgical operations; another is very talented and is a preacher. Dr. PORTER favoured the educational scheme. Dr. ROBERTS doubted whether a medical man should go beyond training his own assistants, because he did not think that China was ready for native practitioners trained in foreign schools, as was seen in Dr. MACKENZIE's difficulty in obtaining posts for his pupils. Whilst he favoured the educational scheme, he thought it somewhat premature. Dr. PHILLIPS was one of those who thought that China was ready, and gave an instance of a student from their hospital, a good operator, who, relying upon her own efforts, is doing a good practice. Dr. KERR.—For seven years the medical class in the Canton hospital had seven teachers, partly native and partly foreign. Clinical instruction is given in the wards and dispensaries. Two days a week are devoted to recitations, one hour to each branch, and though they cannot keep up the recitations with perfect regularity, the intermissions are not many. Two written examinations are held in the year. Last year a certificate was printed in Chinese and English. There are 12 to 15 students, of whom 3 or 4 are women. The fee is \$20 per annum. They thought that at present, with the books we have, a course of three years is sufficient.

Further discussion was then adjourned, and the regular business of the afternoon taken up.

P A P E R .

3.—By H. T. WHITNEY, M.D., *Shaowu*.

The Best Treatment of Hip-Joint Disease among Chinese Patients.

The form in which this subject is stated implies that a discrimination is to be made in the treatment of this disease in different countries, and that there are peculiar circumstances and conditions in China that require a modification of the most approved methods now employed in Western lands.

This is doubtless true, and the purpose of this paper is to briefly indicate what seems to the writer the best method of treatment, and also give some of the circumstances and conditions which limit the best form of treatment which it is possible at present to furnish this class of Chinese patients.

As there is some difference of opinion among leading surgeons in the West as to what constitutes the best method of treating hip-joint disease, it will be necessary to first briefly allude to the different methods employed and the theories which underlie them.

These methods of treatment may be conveniently classed under three heads, viz :—

- 1st.—The Constitutional method,
- 2nd.—The Excision method, and
- 3rd.—The Mechanical method.

1.—Those employing the Constitutional method regard the disease as *general* rather than *local*, and hence rely mostly upon Constitutional treatment and pay but little attention to surgical treatment, except local dressings.

2.—Those who practice Excision regard the disease as *local*, and in the majority of cases tuberculous, and consider an early removal of all the tuberculous tissue necessary to secure the best results.

3.—Those who adopt the Mechanical method also regard the disease as *local*, and in most cases tuberculous, but consider that rest to the joint and proper attention to the system produce ultimately better results than any other method, though they also advocate Excision in the later stages of the disease, after Mechanical treatment has been faithfully tried or the time for such treatment has passed.

Unfortunately, however, those employing the Mechanical method do not agree in the *application* of the treatment.

And as a consequence we get at least four different views under this method :—

1.—*First* those employing *simple Rest*, *i.e.*, fixing the joint in splints or Plaster of Paris, etc., and maintaining perfect rest.

This practice is based upon the denial of any spasmodic contraction of the muscles about the joint causing pressure of the head of the femur against the walls of the acetabulum.

This class are represented by Thomas, of Liverpool, and his followers.

2.—But, as it has been demonstrated that in the large majority of cases there *is* muscular spasm and interarticular pressure, we have a second class who use *Rest* and *Extension*, this latter being effected by means of a pulley and weight, and counter extension by fixing the body.

3.—But, again, there is a third class, mostly the orthopædic surgeons of America, who practise *Extension with Motion*, on the ground that if extension is applied sufficiently to relieve the interarticular pressure, full motion may be allowed without detriment to the joint.

4.—But, as this is supposed by many to violate one of the established laws of surgery, namely, that an inflamed part must be given rest, we have a fourth class who practise *Rest with Extension and Fixation*, in order not only to relieve interarticular pressure but also to secure perfect immobility to the joint. And, in addition, this fourth class have recently demonstrated that vertical extension, *i.e.*, in a line with the shaft of the femur, is not sufficient, since most

of the muscular contraction is not vertical but oblique, *i.e.*, in a line with the *axis* of the *neck* of the femur, and hence that lateral extension should also be employed.

When eminent surgeons of large experience thus disagree in the application of their methods, it is not always easy to know which course to pursue.

But a close adherence to the scientific side will be our safest guide.

In order to treat any disease intelligently its true nature must first be recognized.

The weight of authority at present regards morbus coxarius as an inflammation of the joint, in most cases tuberculous, and tending to run a rapid and destructive course. That the starting-point of the disease, in the majority of cases, is either in the synovial membrane, or the epiphyseal cartilage, or in the bone itself, but never in the articular cartilage or articular ligaments, though these latter may become easily infected and readily destroyed.

It seems to be further demonstrated that in the first stage of the disease, owing to the pressure upon the filaments of the peripheral nerves *in* and *about* the joint, a spasmodic contraction of the abductor, adductor and flexor muscles is set up, causing interarticular pressure and consequent traumatism in the joint, thus hastening caries and necrosis of the head of the femur or of the acetabulum.

Under such conditions what are the principal points to be kept in mind in the method of treatment?

In accordance with the prime law for treating inflamed tissue, the central idea of which is antiphlogistic, perfect rest and freedom from pain are first in order. And, in aid of this, adequate means should be used to overcome unocular spasm and relieve the interarticular pressure, so as to prevent traumatism, the most important point of all.

Deformity and ankylosis should also be avoided if possible; and in the application of splints, etc., convenience in dressing the hip, when necessary, should be provided for.

In the first stage, therefore, of hip-joint disease, when there is considerable inflammation, the patient should be treated in bed or some horizontal position.

When there is slight inflammation, however, the recumbent position need not be insisted on in the preliminary treatment. A great many are being thus treated, with good results, in orthopædic dispensaries in America by the use of "Taylor's long jointless hip-splint." In cases of *active inflammation*, in addition to the recumbent position, the joint should be fixed to prevent motion, and the pressure should be removed to avoid traumatism.

With the exception of lateral extension, the Bryant Morgan, or Double Splint, meets these conditions better than any other. But, anatomically, lateral extension is a very important condition to be provided for. And I know

of no better apparatus to meet this condition than the *Perineal Crutch with abduction bar*, which is used with crutches, and a high-soled shoe is worn on the opposite foot, thus leaving the affected limb in a pendant position.

This apparatus was described in the *New York Medical Record* about a year ago, and claims to meet all the conditions for vertical and lateral extension and fixation of the joint, and also admits of out-door exercise.

For small children, Sayer's wire cuirass is well spoken of, though what is still better for general use, because cheaper and easily made, is the so-called *Portable bed*, which also provides for fixation and double extension, and secures for the young child what the *Perineal Crutch* provides for the youth and adult. In addition to a proper apparatus there are other conditions to be considered as they arise, such as opening abscesses, changing dressings, securing a nutritious diet, and giving proper medical and hygienic treatment.

Having thus briefly pointed out what are regarded as the most important lines of treatment in the West, we will note some of the obstacles that prevent our securing such treatment to Chinese patients.

And first in *Dispensary Practice* :—

In America it has been found that well-equipped orthopaedic dispensaries can treat, with a good degree of success, a large number of this class of cases, provided the parents will interest themselves enough to faithfully carry out the physician's instructions at the patient's home. But in China no such door is open to us.

Not one person in a hundred would faithfully carry out the instructions of a physician even if he could be made to understand them.

Neither would it be safe to furnish any surgical appliances from our dispensaries unless paid for in advance, which could not be expected from that class of patients.

This shuts us up practically to hospital practice.

What are the conditions that meet us here?

Chinese patients do not like to be bound, and will not submit to it for any great length of time.

If the appliance is anything they can remove, either alone or with another's help, it will soon be loosened or removed altogether.

If the appliance does not feel easy, and he cannot remove it, or if it confines him too closely, or interferes with attending to nature's calls in the usual way, he either refuses to have it applied, or, finding himself securely harnessed, makes an excuse to go home.

Under such circumstances Mechanical treatment cannot often be successfully employed except among intelligent Christians and occasional well-to-do heathen families who are willing to trust the physician and help carry out the proper treatment.

Then, again, the majority of cases do not come for treatment till the first stage has passed, and abscesses have formed or sinuses exist, or perhaps necrosis or exfoliation of bone have already taken place, and the patient is emaciated, and an operation the only hope left.

In such cases we usually advise an operation, which is generally refused.

Sometimes chronic cases that have passed through all the various changes and healed by natural processes are brought to the foreigner to see if he can remedy the ankylosis and deformity.

Reports show that some deaths have occurred among Chinese patients, from Excision, though the subjects were in the last stages and very unpromising. In one case an operation was performed only at the earnest request of the parent, and another had perforation of the acetabulum.

In ordinary cases, however, Excision results in a fair recovery. But as yet comparatively few have been willing to submit to an operation. So that we are forced to rely mostly upon constitutional treatment as about the only alternative at present left us.

And in applying this method we are also hindered in many ways.

Most of the patients are poor and cannot provide proper diet. Neither can they afford to remain in the hospital long enough to get the benefit of prolonged tonic treatment. Also, we all know the great difficulty of getting Chinese patients to follow instructions, whether in taking medicine, or making external applications, or attending properly to dressings of any kind.

The principal medicinal agents in which I feel the most confidence in treating this disease, are Cod Liver Oil Emulsion, Dialysed Iron, the Hypophosphites of Lime and Soda, alternated with Cinchona and Gentian, or some equally valuable vegetable tonics.

With a fair opportunity for prolonged treatment of this kind, and a reasonable attention secured to the hip, I am led to believe that in many cases a great deal of good has been done.

Of course, no such complete results are to be expected as are obtained in Western lands, but still, if we get an improved condition of the system and healing of the ulceration, so that the patient is able to go about and do some kinds of work, even though there be ankylosis, adduction, deformity, shortening, and some atrophy, yet, in the present undeveloped state of medicine and surgery in China, such results are appreciated by most Chinese, or even any result short of actual death, especially if it is a son.

There are exceptions to these results, and no doubt there are those present who have had exceptions in their practice, as we have in ours, but the general results obtained are, I apprehend, much the same in all parts of China.

To sum up this subject, I am inclined to view it as follows:—(1). That the most advanced treatment of hip-joint disease at present should include modifica-

tions of the three methods referred to in this paper, *i.e.*, primarily the Mechanical with the Constitutional, but resort to Excision if other means fail or the patient is seen too late to employ the Mechanical method. (2). That the Mechanical treatment should employ that kind of apparatus which will secure double extension and fixation in order to prevent traumatism and furnish absolute immobility to the joint. (3). That in the first stage of the disease, if the inflammation is slight, the treatment may admit of out-door exercise, but, when the inflammation is considerable, the patient should be confined to a recumbent position. (4). That, owing to the peculiar conditions existing in China, it is practically impossible to apply the best methods which scientific medicine calls for. (5). That in China the main reliance must be upon Constitutional treatment, but use the Mechanical method whenever an opportunity offers and, as a rule, perform Excision as often as consent can be obtained after the stage for Mechanical treatment has passed. And (6). That, in the large majority of cases, the ultimate results, from any or all methods, are unsatisfactory from a scientific point of view.

In the view thus advanced in this paper we cannot hope for unanimity of opinion on all points as to the best method of treating this disease, owing to the widely different teaching of eminent surgeons in Europe and America. And, as the application of treatment may vary in different parts of China, it is desirable to adduce further testimony on these two points, *viz.*:—

First.—What is *really* the *most scientific method* of treating hip-joint disease? and

Second.—In what parts of China can it be most thoroughly employed?

DISCUSSION.

Dr. LYALL.—These cases are very hopeless, because they either come into the hospital in too advanced a stage of the disease or will not stay long enough for treatment. Rarely sees a case in the early stage. Had some success with old treatment of long splint to sound limb and extension to diseased one. Abscesses and sinuses he drains, cutting into the joint. He has excised the joint but without much success. Dr. DOUTHWAITE had lately tried a padded splint of hoop-iron from the axilla with another round the buttock; raises the foot from the ground by fastening pieces of wood to the sole of the foot on the sound side; and sends them off with a pair of crutches and Cod Liver Oil. He knew one case do well. Dr. HUNTER did not take them in for less than three months. Dr. REIBSNYDER testified to the unwillingness of the Chinese to take trouble in the early stage. The PRESIDENT.—Occasionally we find patients willing to undergo treatment. If the joint contains fluid, he aspirates with antiseptic precautions and then injects a solution of iodine and glycerine; the aspiration may be repeated. He afterwards applies weight and pulley in such a direction as gives the child greatest ease;

and after about two months proper hospital treatment, applies a splint—the New York Poly-clinic splint answers well. Should abscesses form, he aspirates continuously, and later, lays open sinuses freely, and if they lead to the joint, he explores, cleaning it out thoroughly; finally excise, but only as a last resource, and in young children being careful not to remove too much. As a rule, amputation is not advisable, the pelvic bones being too often involved. Mortality after excision in St. Luke's Hospital was 50 % of the cases, which were followed up to their homes.

P A P E R .

4.—By ROBT. COLTMAN, junr., M.D., *Chinaifu*.

The Fevers of China.

(Read by the Secretary.)

On receiving notice of my appointment to prepare a paper under the above title, to read before your honorable body, I proceeded to write to my professional brethren in China, with a view to obtaining their experiences; and the collection of facts which I lay before you, I have gathered from their replies, hospital reports, and my own experience. I find the field to be investigated a large one, and that apparently but little personal investigation has so far been made. This is due to several reasons: *First*—The comparatively recent advent of foreign physicians in China, for although since Dr. PARKER's time there have been a few physicians scattered about at the seaports, yet it is only the past few years that they are penetrating to the interior, and that medical missionaries are beginning to be in position to make extended observations of the climate and diseases of this land. *Second*.—Want of confidence on the part of the natives to submit for any lengthened period to the treatment of a foreign physician, or in fact to any *one* physician, their rule being to change physicians twice or thrice daily in serious cases if they can afford it. *Third*.—Lack of hospital facilities in many places where fevers might be studied. *Fourth*.—Impossibility of obtaining post-mortem examinations.

I understand my appointment to mean, what are the fevers of China now, and how they differ if at all from fevers of other countries. It is just possible that some of the diseases, to be enumerated, have been introduced from foreign countries, but in the state of the native medical faculty we can get no reliable information, and I fear some of these points, on which information would be desirable and interesting, will never be forthcoming.

I find that Variola or Small-pox is the most common disease of China. By this I mean that nearly every one has it at some period of their life, usually

in childhood. No region is free from it; it may be called resident everywhere—and epidemics are few, for the reason that the entire adult population have had the disease in childhood. Occasionally you meet with more than usual of it among the children; especially is this so when floods or famines drive people away from their homes, and cause them to crowd together, but it is confined to the children. I venture to say that in every Chinese city of size there are always a number of cases of small-pox. Last spring it was worse than usual in Chinanfu, and my wife and three children were all taken ill with it, but all recovered, while a native child on my place, treated by native physicians, changed thrice daily, succumbed. Vaccination is practised, but the virus is in many cases impure from carelessness in obtaining and from ignorance. And I doubt not that Syphilis, Scrofula and Tuberculosis are often communicated in this way. Until China has a large body of practical, well-educated native medical men, to whom, as “boards of health” the hygiene of her cities can be trusted, small-pox, as well as all contagious and miasmatic diseases, must continue to annually decimate her population.

Measles exist here, and about Teng Chow Fu appear to be very frequent—reports from other places also prove their existence in other cities and towns. I have personally seen two well-marked cases occurring in Chinanfu in foreign children, both of whom were born here and had never been away, so that the infection was doubtless from native source. This disease, as nearly as I can find out, is in no way different from our descriptions of it in Western works on practice of medicine, though apparently milder.

Scarlet Fever undoubtedly occurs among the natives. I myself have seen but one case of this disease in China, and that occurred in a child four years of age, the daughter of an English missionary. She had ulcerated throat, rose rash all over the body, high temperature, desquamative nephritis, purulent otorrhoea and finally pneumonia and death. This child had been residing inland for ten months, and I judge the infection must have come from native source.

But other observers have met the disease in native patients, as dispensary reports from Moukden and Peking show. My correspondents also from Shanghai, P'ang Chuang and Tientsin report having treated native patients with this disease. Indeed one of my Tientsin correspondents reports it epidemic there every winter. Observers in other places report having met cases of nephritis who came with a history of a previous fever much resembling scarlatina. While from Canton, Teng Chow Fu, Ch'ing Chow Fu, Wei Hsien and Chefoo, my correspondents have reported that, so far, they had never seen a case. My own opinion is that it is more prevalent in North than in South China, and that *possibly* it has been introduced by foreigners from England or America. I also believe the temperature of a fairly cool climate to be more favorable to its development than a warmer region.

Erysipelas is very rare in China, but has been reported from Foochow and Soochow, as I glean from hospital reports. Unfortunately, I cannot say whether of idiopathic or traumatic origin. I have met with a few cases myself of traumatic origin, which yielded readily to Tincture Ferri Chloridi. More information on this subject would be valuable, and I hope that any of my brethren having surgical cases followed by erysipelas will promptly report them through our Journal.

Typhoid of undoubted type, that is to say, genuine enteric fever, has been reported from Shanghai, Canton, Hainan, Hang Chow, Wei Hsien, Tientsin and Teng Chow Fu, and I myself have met it in this city. It appears to be rather infrequent, as some observers report not having met it, and no one observer has had any large number of cases. But this is one of the diseases that usually requires eight to twelve days to establish a perfect diagnosis, and consequently the foreign physician is not retained long enough to decide positively the nature of the case. I believe when greater confidence is shown in the foreign physician, and more accurate reports are possible, that this disease will be found more common among the natives than is now supposed. Universal testimony to the value of the mineral acid plan of treatment for this disease lies before me, though in the selection of the acid there is some disagreement, the Sulphuric and Nitro-muriatic each having their friends. I myself have used both acids, but prefer the latter, especially in those cases complicated by malaria. It is here perhaps that I should speak of the so-called *Typho-malarial fever*, and I feel I can do no better than to quote Professor ROBERTS BARTHOLOW:—"By this term is meant typhoid fever complicated with a malarial element. In consequence of the existence of a malarial infection the symptomatology of typhoid fever is modified—the chief variation from the usual thermal line consisting in the greater excursions of the daily temperature. This modification of the fever has long been known by all well-informed physicians practising in malarious regions. Dr. WOODWARD, of the U.S. Army, gave to this combination the name typho-malarial fever, he at first supposing that there was something distinctive in this form of fever, and that its morbid anatomy differed in important particulars from that of typhoid. However, in a paper read before the International Medical Congress at Philadelphia, Dr. WOODWARD retracted his original observations and admitted that he had been misled, and that the morbid anatomy of typho-malarial fever is merely that of typhoid. Typho-malarial fever then has no reason to be admitted into nomenclature—does not in fact exist. All that can be claimed for it is, that when typhoid fever occurs in an individual saturated with malaria, the fever is modified somewhat in its course, has more of the remittent type and is apt to be protracted, owing to the occurrence of intermittence during convalescence."

If the pathological lesions of the so-called typho-malarial fevers are but the lesions of typhoid, then the term, if used at all, should be distinctly understood to mean typhoid fever occurring in an individual previously subjected to the malarial poison.

Typhus Fever is frequently met with all over North China and as far South as Shanghai, after which it is seldom or never seen.

In 1878 an epidemic occurred in Peking with heavy mortality rate. In 1886 an epidemic occurred in Shansi. In the spring and summer of 1889 an epidemic occurred in Shantung. It is also reported from Moukden, Peking, Tientsin, T'ai Yuen Fu, Shanghai, Chefoo, Teng Chow Fu and other places. Its existence has been denied in Canton.

Relapsing Fever in China, as in other countries, is found constantly associated with typhus. I saw a number of cases last spring during the epidemic of typhus. It is mentioned as the most common variety of fever at Teng Chow Fu.

Dengue is reported as having occurred in foreigners at Canton, but as that is the only place, and there is no evidence that a native has ever had it, it cannot as yet be classed under our title.

Cholera occurs as an epidemic every few years and is frightfully fatal. The ports seem to be affected most, but in the summer of 1888 a widespread epidemic swept through Shantung and Chihli from east to west, sweeping away thousands of lives. I believe it has existed in Chefoo the past five years, as there are perennial outbreaks of it among the natives there. The natives dread this disease very much, and on being seized with a diarrhœa during a cholera visitation, immediately give themselves up for lost, and doubtless many perish from fright alone. I had one case in which all my persuasion could not induce my patient to believe he had not the cholera. Finally, by joking with him and telling him if he really had it he would not be willing to admit it, I got him in a more hopeful frame of mind, and he soon recovered from his diarrhœa.

Diphtheria is reported from Tientsin, Peking, Chinanfu, P'ang Chuang and Ch'ing Chow Fu. I have seen a number of cases in foreigners and natives in this city, but I get no reports of its existing south of Shantung. It is severe and frequently fatal in the natives, though apparently less so in foreigners. This may be due to earlier and more energetic treatment on the part of the foreigners.

Cerebro Spinal Meningitis I believe to exist in China, as my own child suffered a well-marked case of it three years since. But I have received no reports of any one else having met it. BARTHOLOW says it has never been reported from Asia.

Whooping-Cough is reported as occurring occasionally in Tientsin. I have not heard of it elsewhere and have not personally met a case. I infer that if it exists it is rare.

Rheumatic Fever is reported from Foochow as very prevalent. Shanghai, Soochow, Chefoo, Lao Ling and Hang Chow also report its prevalence. I have seen but one case in four years and a half, and that occurred in a Catholic priest, a native of France. Chronic Muscular Rheumatism is common all over China, but is unattended by fever.

And now we come to *Malarial Fevers*, and I find they are reported from everywhere. From Peking in the North to Canton in the South, everyone says they are common. It is interesting, however, to note the different forms the poison manifests in different localities. Thus I find the *Intermittent* of tertian type to be most common in Peking, Chinanfu and Wei Hsien.

Quartan Intermittent in Korea, Soochow, Foochow, Swatow, Shanghai and Hangchow.

Remittent is reported as the prevailing type at Chefoo and Tientsin, though intermittents are far from rare. Here in Chinanfu I have never seen a case of Quartan Ague, it is all intermittent of the tertian or quotidian type.

Since the Yellow River has flooded this region there has been a marked increase in the number of fever cases treated at our dispensary.

Shanghai reports a pernicious type of remittent fever, with scarcely any remission that is largely fatal.

In answer to my question, How do you treat malarial fevers? I have received about the same reply from all sources. Quinia or some other alkaloids from the cinchona bark are the specifics. Some prefer Quinia Sulph., some Cinchonidia Sulph., others still other alkaloids, but it is universally recognized that Peruvian Bark is the specific for malarial poison. Scarcely any have tried the Carbohc Acid and Iodine treatment, which is so popular in Camden, U.S.A., where Malaria is especially rife; though from Hangchow we learn that its employment in that vicinity as a prophylactic has been successful. Arsenic is recognized as valuable in the chronic forms.

It has up to the present time been found impracticable, owing to the ignorance and prejudice of the Chinese, to hold post-mortem examinations, and until that can be done the pathological appearances and morbid anatomy of these and perhaps other unrecognized diseases must remain a secret. But we may fairly conclude that where the symptoms so nearly coincide with descriptions in our works on practice, that the morbid conditions producing them will also coincide, and our treatment, based thereon, give the desired result. I find in all the diseases I have mentioned that our English and American descriptions are as perfect for China as for the home lands. To sum up then, I believe that, with the exception of Dengue and Yellow Fever, you will find in China all the fevers recorded in any American work on practice, and that the fevers are essentially the same in this land as in America.

DISCUSSION.

Dr. PORTER.—Scarlet-fever and whooping-cough are both common in Shantung; diphtheria is also prevalent in North China. Dr. KERR last year had a number of cases of scarlet-fever amongst the Chinese in the girls' school: he had also many cases of typhoid, but they presented no rash. Dr. LYALL thought that Rötheln was often mistaken for scarlet-fever. He has seen typhoid, but without the rash. He seldom sees typhus, which is a much milder disease in tropical than in temperate countries. He has not seen scarlet-fever in Swatow. Dr. LALCACA thought that the fevers of Shanghai are of a less virulent form than those of India, but that some cases may have a slight renal complication. He further noticed that in some cases Quinine seemed to make worse. Dr. MATHEWS made reference to nine irregular cases of scarlatina recently under his care, allusion to which sufficed as he had published an account of them in the current Number of the Journal. In the Spring of last year he had had many cases of Rötheln under his charge. Dr. WHITNEY had never seen a case of typhus, whilst typhoid, whooping-cough, Rötheln, febricula are all common and diphtheria probable. In Foochow the malarial type of fever is principally remittent; scarlet-fever is said to occur; then in Formosa there is the typho-malarial fever. Dr. REIFSNYDER said that in one year a quarter of the patients had ague or fever, that is, out of 12,000 patients 3,000 are "fever and ague," mostly quartan, the next in frequency being quotidian.

On motion of Dr. ROBERTS the evening meeting was postponed until 9 p.m.

THIRD DAY.

(Wednesday Morning, May 21st.)

The President, H. W. BOONE, M.D., in the Chair.

Secretary, The Rev. S. R. HODGE, M.R.C.S., L.R.C.P. (Lon.)

The Rev. Dr. S. A. HUNTER, late of Wei Shien, Shantung, offered prayer.

The minutes were read, corrected and passed.

Dr. PORTER moved that the order of the day be proceeded with. Dr. WATSON proposed and Dr. GRANT seconded an amendment that the discussion on Dr. Coltman's paper be taken up, and this was carried.

The PRESIDENT, referring to the spread of vaccination, said he understood that in North-China the native faculty had improved on our methods, for having

run out of vaccine on one occasion they used condensed milk as a substitute, and were so satisfied with the results that they had continued the practice to the present day. Referring to Scarlet-Fever, he said that for many years Scarlet-Fever had never been seen among the natives in Shanghai, but some eight years ago it was introduced by a foreign child who came to the port ill with it. From this child it spread, and since that time he had frequently seen it among the Chinese. His cases were seen by several doctors, and the diagnosis was confirmed, desquamation quite distinctive. Typhus very rarely seen. Typhoid he had seen among the Chinese, with typical eruption, and confirmed post-mortem experience had led him to conclude that it was a much milder affection with the Chinese than with foreigners. Diphtheria is seen in Shanghai, and a peculiar form of Pernicious Malarial Fever. Whooping-Cough is known among the Chinese; the first case ever known amongst foreign children in Shanghai was that of his own brother, when they were living in a native house amongst the Chinese. At that time there were only some 12 foreign children in the Settlement. Malarial Ascites cases generally do well after tapping. True Asiatic Cholera visited Shanghai in 1863, 1864 and 1865. The victims were attacked suddenly and quickly carried off. There were many troops in the harbour, but only one vessel, the American man-of-war, escaped. She was in port six weeks. No communication was held with the shore. Ship's stores and distilled water only were used, and she never lost a case. Dr. LALCACA thought the types of fever met with in Shanghai were mild compared to those prevalent in India. Doubted very much whether true Asiatic Cholera was ever seen in Shanghai now. Dr. HODGE referred to his paper on Scarlet-Fever in the Journal and to Dr. Pritchard's reply. Recommended Pierce of Ammonia for Intermittent Fever; no use for Remittent. His experience of Malarial Ascites differed from Dr. Boone's; they generally died, despite careful tapping with Sonthey's trocar, proper dietary and medicinal treatment; they are liable, too, to an obstinate form of diarrhœa. Dr. LUCAS, of Bombay, recommends Fluoride of Ammonium. Intends to try it. Had seen true Asiatic Cholera in Hankow two years ago, virulent, mortality high; lost all his early cases. Used Waring's pill freely in the early stage, sending natives among the people with written instructions. Whilst agreeing with Dr. Lalcaca that we never see any malarial fever equal in intensity to the Terai Jungle-Fever of India, yet he had seen some very obstinate, and somewhat athenic cases of Malarial Fever amongst the Chinese. 104 and 105 not uncommon temperatures. Perseverance in treatment. Quinine given intelligently, with careful feeding during the remission our main anchor. The PRESIDENT asked how many cases Dr. Hodge had treated with Pierce of Ammonia, and if he was satisfied with the results. Dr. HODGE replied he must have treated one or two hundred, and was quite satisfied. He again insisted that it was no use in Remittent Fever; if pushed too far it

might make the patient yellow, and the colouring matter is always excreted in the urine. The PRESIDENT asked if Dr. Hodge had taken measures, when tapping, to prevent septic infection, and whether the diarrhœa he spoke of might not be due to such cause. Dr. HODGE replied that the diarrhœa was generally there before tapping. The opening made by Southey's trocar was exceedingly small and valvular; he doubted if sepsis were possible; no signs of it in his cases; suggested that the end of the tubing might be placed in an antiseptic solution. In reply to a question from Dr. Lyall, he said he certainly should not give purgatives in these cases.

P A P E R .

1.—By A. LYALL, M.B., C.M., *Secretary.*

Advantage of Two Physicians Working in each Large Centre.

The subject which has been assigned to me to bring before this Conference for discussion is the advantage of two physicians working together in each large centre. From the medical point of view, the great advantages of this plan to the medical missionaries themselves, as well as to the work under their charge, must be so patent to the mind of every one who has had any experience of medical missionary work in China that it seems unnecessary to dwell on this point. But there is another side to this question, which must not be left out of view. Medical missionaries are supported by the Christian Church, and are sent out for a special purpose, and therefore we must look at this subject from the Church's point of view as well as from our own. We must not let any merely selfish desire for an easier life, for more leisure for the culture of our own scientific tastes, for more time to allow us to pursue our work in a more scientific manner, or to enable us to develop our work so as to embrace a larger number of patients, obscure in our mind the primary object of our presence in this land, or make us forgetful of the fact that the task which the Christian Church has undertaken, and, with the help of God, means to accomplish, is nothing less than the conversion of the Chinese nation to Christianity. To the Church, therefore, the vital question is, how this task can be most successfully and rapidly accomplished. Its obvious objection to the plan under consideration resolves itself into one of *men* and *means*. It amounts to this,—would the two physicians not be of greater use working at separate centres, each having a full complement of native helpers under his control, to relieve him of much purely routine work? There is much in this objection. Some churches have difficulty in getting suitable men. Other churches have their resources strained to take advantage of the many openings for pushing missionary operations which they find springing up on every

side, as a direct result of existing missionary centres. Again, there are many and most obvious reasons why two centres are more advantageous than one. Neither is this objection an unreasonable one. It is, indeed, the very opposite. It is the duty of the Christian Church to give the Gospel to the Chinese and to other heathen people, but it is not specially its duty to support large and, it may be expensive benevolent institutions among them. It is well that the practical side of Christianity, in the shape of hospitals for the poor and suffering, schools, etc., be shown to the heathen. This, the Church is trying to do. We cannot, however, supply all the medical requirements of such a vast Empire as China. Even were it practicable, it is not advisable to do so. The Chinese must be taught to support and carry on their own benevolent institutions. When the influence of Christianity begins to be felt by the people, they will not only do this, but will also set about to get medical men trained for themselves.

Recognizing, therefore, the reasonableness of the objections on the part of the Church, what then are the advantages which we can offer to the Church for having two physicians at one centre? A good many, and some of them, to my mind, weighty ones:—

(1.)—*Both surgical and medical work better done.* This is a matter of no small importance. One man may have a better opportunity than another, but, other things being equal, it may be laid down as an axiom that the influence of a medical missionary (or of the hospital under his charge) among the people is in direct proportion to his skill in his profession. I say his *influence* is dependent on his skill as a physician or surgeon, but it depends largely on the character and spirit of the man whether or no this influence will be utilized for the spread of Christianity. It may or it may not.

(2.)—The medical missionaries themselves will be enabled to take a more prominent part in the evangelistic work of the hospital, and that without interfering with the proper discharge of their medical duties. This, also, is a matter of great importance. The more intimately a man can identify himself with the evangelistic work in his hospital and elsewhere, the more surely will any influence which he possesses tend to impress his patients favorably towards Christianity.

(3.)—More medico-evangelistic work could be done in connection with out-stations. While I do not think that the quality of the medical work done in itinerating amounts to much, yet it has a certain value. It provides, at least in some cases, a favorable opportunity for presenting the Gospel. When, however, a week or two can be spent at a time at one place, say a village or town where there is a chapel, more valuable results may be reasonably expected. It brings people about the chapel and in contact with the native preacher, and it may render the position of native Christians a little more endurable by making the people more friendly disposed towards them.

(4.)—A certain amount of help could be given in teaching in the schools and college on such subjects as lie more directly in the line of the physician, such as the various branches of science. A little knowledge of science is certainly useful, as it helps to clear the Chinese mind of superstition.

(5.)—More medical work could be done among the wealthy and official classes in their own homes. A wealthy man or a mandarin can hardly be expected to come for medical treatment to the hospital, where he may have to mix with all classes of people, even though he be willing to pay for medical attention. On the other hand, the care of a large medical mission leaves little leisure for visiting patients at their own homes. So far, I believe, little or no effort has been made to reach the well-to-do or official classes with the Gospel, and while I do not pretend to say that for various reasons much could be done in this direction, even by medical missionaries while attending them in sickness, yet it would tend to allay hostility and create a more friendly feeling towards missionaries, beside giving occasional opportunities for direct missionary work.

(6.)—A more efficient and systematic effort could be made in teaching and training native medical men. In connection with this matter certain questions present themselves at the outset, such as how far is it the duty of the medical missionary or the Church to train native doctors, but it is outside the scope of this paper to discuss these questions. The work of training native medical men commends itself to the Church from at least two points of view.

(a.)—One is the philanthropic nature of the work, providing, as it does, a class of comparatively skilled medical men for the people. Whatever view may be held as to the advisability of medical missionaries giving time to this work, it is certainly not antagonistic to the spirit of the Gospel, but rather, in the present condition of matters in China, it is a Christ-like work. Therefore, in the case of churches which could as easily support two men as one at their large mission centres, there would be nothing unwarrantable in asking them to do so, for no other purpose than that this work might be more systematically and effectively carried on.

(b.)—The other is that it provides for intelligent, well-educated young lads who have been brought up in the fold of the Church, another useful career besides that of the preacher or teacher. In many old established missions a difficulty is springing up to find suitable employment for young men belonging to the Church, who have been fairly well educated, and who may not care to enter the employ of the mission as preachers or teachers. Many branches of industry are practically closed for such lads, owing to their Christianity, and the education which they have received, even though it may not unfit them for life on the farm, renders this life distasteful to them. As medical practitioners, a useful career is open to them, and if due and proper care be taken in the selection of pupils, there is no

reason why they as medical men should not be a help to the Church in their neighborhood.

In course of time, some of these men may be found willing to become medical missionaries to their own people. The time, however, in my opinion, has not come for the Church to employ natives as medical missionaries. The temptations to which they would be exposed are great, and it is not wise to place young men just emerging from heathenism in positions of great temptation. It is better to send them out to earn their own livelihood, hoping that as private individuals they will help in the building up of the Church of Christ in their midst.

(7.)—This arrangement would go a great way in solving the often perplexing question of furlough. So far as the South of China is concerned, seven years is long enough for any man to remain out without a furlough. Too often hasty arrangements have to be made, and perhaps a young man just from home, without having had time to get up the language, is forced to undertake the whole responsibility of a large medical work, to the great detriment of his future usefulness.

Such, then, are some of the more important advantages which may be offered to the Church as inducements to furnish two medical missionaries at each large centre. It is obvious that the principle is of limited application. At present the drift of missionary policy is tending in the direction of each mission having one strong, well-manned centre, where the educational, literary and other departments are carried on, with smaller centres in the surrounding country for only medical, evangelistic and pastoral work. It is, therefore, not unreasonable to expect that in the larger and most important centre there should be two medical missionaries.

As the result of some experience, I have gradually come to think that in most large mission stations where medical work has been long established it would be most beneficial, both from a medical and a missionary point of view, to have not only a male medical missionary, but also a lady physician.

The discussion on this paper was deferred till the afternoon.

A motion that Dr. Thomson again read his paper on "Native Practice and Practitioners" was lost; but on the proposition of Dr. Morley, seconded by Dr. Hodge, it was agreed to take up the discussion on the subject, for which purpose Dr. Thomson was asked to give a brief *résumé*.

P A P E R .

2.—By JOS. C. THOMSON, M.D., *Macao*.*Native Practice and Practitioners.*

To remove any undue pride in this the earliest meeting of our Medical Association, let us carry our thoughts back to the *first* Medical Society in China—a royal one at that, only 4,600 years ago, when Emperor Shan-nung, the Father of Medicine, K'i-pak and Wong, three celebrated medicos, dwelt in marble halls, and with serious mien discussed *nem. con.* our disease, its cause, its treatment, and sent to us through printed page the panacea for all our ills.

Of this and more or less that follows be it said :

“ I cannot tell how the truth may be.
I tell the tale as 'twas told to me.”

The *Practice of Medicine*, “the benevolent art,” one of the “nine professions” and second only to the profession of letters, attracted very early attention in China. The Emperor Shan-nung (神農) 2700 B.C., author of the earliest medical work, the *Shan-nung Pun T'so King* (神農本草經) is reputed the Father of Medicine.

At the great Burning of Books, about 212 B.C., those on Medicine, Divination and Husbandry were saved, and Chinese medical literature probably bears about the same proportionate relation to other literature that medicine does to books in other departments in the English language, one-thirteenth, it is reckoned.

On the theory of medicine, suffice it to say, disease is supposed to be caused by a disagreement of the Yam (陰) and Yeung (陽) principles of nature, the dual theory; the presence of bad humors and the more powerful agency of evil spirits. These must be looked after, and this is accomplished through the medium of the pulse and the twelve Ching, by fate-sticks, charms, and various forms of divination.

Coming to the *Practitioner*, “the nation's arm.” There are doctors and doctors. *Medicus nascitur non fit*. There are specialists for nearly every general division of the body, it is said. There are Physicians or doctors of internal diseases, the most numerous and in best repute; and Surgeons, or those who attend to external ailments—(foreigners are usually assigned to this class, because of the amount of surgery that falls to them. That we should be both is quite contrary to their preconceived notion of things).

This distinction is very important. You know the humorous illustration:—A Chinese being struck by an arrow, the surgeon breaks off the protruding

portion, leaving the point imbedded in the body. This he refuses to meddle with, as contrary to medical etiquette, and leaves the patient to call a physician to treat him for the arrow-head, as being *inside* the body. So there are doctors for the eye, chest, bowels, skin, women, children, bone-setters, dentists, barbers, pain-killers, bruise-curers, gland-doctors, bullet and sword-cut doctors, snake-bite-curers, priests, masseurs, corn-curers, secret society chief doctors, midwives, abortionists, fortune-tellers, spirit-mediums, the doctor afloat, the miscellaneous doctor, the faith-healer, and the veterinary doctor, ("the diseases of the inferior animals have been included as a subsidiary branch of the medical profession from the earliest times,") not to mention the brass mule of Peking.

There is the Great Medical College at Peking, dating from the Yuen dynasty (1280-1368 A.D.), in suspension more or less of the time since; yet it does not impart instruction, though it may confer some degrees; but its physicians mainly attend on the Imperial family and court, and there is no other. So there are no examining boards, nothing really to prevent any simpleton from advertising himself as the eminent Dr. Blank and experimenting *ad libitum*. But the doctor by famous descent is the most honorable. In the Chow dynasty the public was warned against rashly swallowing the prescriptions of any physician whose family had not been *three generations in the medical profession*.* If the line runs out, this reputation, with the right to any secret nostrums, is sold with the estate. By purchase there is another way into this profession. On getting possession of a few old medical books, the applicant reads them, possibly with the aid of a preceptor, and up goes his shingle.

As to who is called in sickness is a matter of choice; may be already known, near at hand, or the selection may be by casting lots. The doctor repeats his call if again sent for. "Doctors knock at no doors; they only come when invited." Usually, one after another is called till the patient is better or has died, or they resort to other curative measures.

The *fee* may be according to the patient's ability; wrapped up in red paper, called "golden thanks," "thank-walk," etc. Or the invalid may contract to be cured in a specified time for a certain sum. His recourse at the end of that time is to declare his doctor a humbug and try another. So their proverb:—

"He'll warrant a cure when his fee is provided;
Men doubt it, however, and are undecided."

There is said to be a plan of paying moderately, so long as one, an aged person for instance, is kept in health.

If the patient be a government officer or wealthy, the nature of the disease, prognosis and treatment will be written down; so special penalties are laid down in the Penal Code against any failure in this particular, in the case of the

* GILES'S *Historic China*, p. 10.

Emperor; but generally a verbal communication is sufficient. It was a standing regulation in the Chow dynasty, that all potions administered to the ruler of a state should first be tasted by his Prime Minister.*

This same code declares that if a practitioner proceed contrary to the established forms, and the patient dies, the doctor shall be treated according to the law for accidental homicides, and prohibited from longer practising; but if he intentionally departs from established rules of practice to obtain property, and death ensue from his having used medicine with intent to kill, he shall be beheaded. Nevertheless there are tricks of the profession, since for ways that are artful, the Chinese is peculiar. So capital amputation is averted, though we have heard of the running out of a quack and the splitting of his red sign-board by the populace, when his impositions become too flagrant. However, there is a higher court, since the spirits of dead patients are supposed to hover and sit around the door of the unfortunate physicians by whom they have been "cured-dead." In the proverbs "the most wonderful medicine must fail to cure a sickness caused by resentment." If one have caused the death of another, the ghost of the murdered man is supposed to haunt and afflict his enemy with a sickness no medicine can cure.

Someone has ventured to declare, that "were all the native practitioners in the Empire at once swept away, the Chinese people, so far as regards their prospects of health and longevity, would sustain no very serious loss."

The practice of medicine in China is in its decadence. And China, it has been said, is not behind the more civilized countries of Europe in shewing disrespect to medicine, and curtailing or niggardly granting state honors and pay. The highest usual rank in medicine is a fifth Button, and for extraordinary services rendered, or some wonderful cure, sometimes a Third, is bestowed. The "Golden Age" has passed away, with its famous surgeons and physicians, Shan-nung and Wong, who on thrones of high estate exalted sat, Wa-t'o, who scraped a bone of the future god of war and excised and anew replaced the eyeball of a king's son, and Pin-ts'enk, who, receiving his knowledge from a genii and drinking dew for thirty days, became perfect in his art. The theory of the pulse and the practice of Acupuncture and the moxa are put down to his credit. Soochow boasts a medical pantheon or "Temple of the Healing Kings." Among the 2,000 more or less in Canton the names of Dr. Chin and Dr. Tai Wong, the "Rhubarb King," appear, the latter's chief reliance being on the one drug rhubarb. The few experienced practitioners are not enough to redeem the class, which for the most part is held in but little esteem. Social respectability counts for more in giving a reputation. As to patients, six classes, the doctors say, are incurable—the self-indulgent and the profligate, unreasonably violating propriety; second, the

* GILES'S *Historic China*, p. 10.

inconstant and the covetous; third, the unsuitably clothed and fed; fourth, the constitution which has its functions deranged; fifth, the emaciated, who is unable to take medicines; and sixth, the believer in enchantments, who has no faith in his physicians.

Such is practice in China, yet strangely its ignorant and unscientific practitioners are courted by foreigners at home and abroad.

The art of *Acupuncture* seems to have been invented in China in a period of the remotest antiquity. Emperor Wong (B.C. 2697-2597), according to Chinese tradition, was the first to teach *Acupuncture*, in his work *Ling Ch'ü King* (靈樞經). We know that in 579 B.C. *Acupuncture* was practised by Chinese physicians, and it is said this is the first mention of it in any book, Chinese or Foreign.* The celebrated Pin-tsenk (扁鵲), of about this time, was also credited with the practice of *Acupuncture* and the moxa. Yet it is declared it was under the Sungs (A.D. 960-1280) that the first work on *Acupuncture* was published. In A.D. 1027 the Emperor had two copper male and female anatomical figures of the human body made to illustrate the practice of *Acupuncture*. One of these is still in the college at Peking, it is said, but not very like that which it is intended to represent.

Mention is made of 367 points on the surface of the body, to which are given particular names according to the relation in which they suppose them to stand with the internal parts. Other models of iron wire are employed, on which the parts safely vulnerable are clearly and distinctly shown, in order to obtain practice without compromising human health; and small copper figures, in which very small holes are made in the proper places, the surface of the figure then covered with paper pasted on, and the student is required to place his needle without hesitation upon the spot where the opening is made, and on which he would be required to operate according to the affection examined.† The same writer remarks that, in the application of both needle and moxa they seem to have been guided by long practice; but probably their experience has cost the lives of a great number of patients.

Litigation sometimes takes place as the result of death from *Acupuncture*, and the case is always decided in favor of the doctor if it can be shown that he has punctured the body in the places indicated on the Brass Man, or from the recognized diagrams.

As to the *modus operandi*, nine kinds of needles are mentioned, also a "tube needle" as given under SURGERY. The whole skill is in the choice of places where to insert them, the depth and the direction; usually a slight blow with a light mallet drives the long metallic needle one-half to three-quarters of an inch into the soft parts. If the skin be distended and the needle turned

* LEGGE'S *Classics*.

† HUC'S *Travels*, II, p. 17.

instead of being driven straight forward, the operation is not very painful. The needle is sometimes made red hot. As a panacea, it is used in all manner of diseases, much in cholera, so in cough, colic, hernia and local pain and swelling; even the stomach and abdomen may be punctured. The proverb reveals its comparative importance. "*It is a disease which neither needle nor medicine can reach.*" The practice seems to be more in vogue at the North. This indiscriminate puncturing is often worse than the disease. A notable illustration of its use is given under the topic OBSTETRICS. So far as native references go, suffice it to say it is treated upon in the *Su Man* (素問) of the third and fourth centuries B.C., probably the oldest medical treatise extant.

From China it early passed into Japan, and RÉMUSAT says the first notion of it as practised in China was brought into Europe by TESS-RUYKE, a Dutch surgeon, at the end of the seventeenth century.* At one time early in this century it was much extolled in France, and might, no doubt, with benefit often find a place in our armamenta.

A knowledge of ANATOMY and PHYSIOLOGY is fundamental in the practice of medicine; yet in these the Chinese are lamentably deficient. To them man is a microcosm, a little universe. The body is composed of 5 elements, and these connected with 5 tastes, 5 colors, 5 metals, and 5 solid viscera. A derangement of the balancing of these 5 elements causes disease. So fire and moisture, cold and heat, when in excess or deficiency, derange the economy.

The ramifications between the elements, etc., may be readily found under some of the references given. The sympathy between different organs and viscera they romance upon satisfactorily,—“the heart is the husband, the lungs the wife.”

Our appreciation of woman might alter this; but their traditions agree with us anatomically on a side issue, and assign to woman a rib more than to man; and in an old treatise on how “the bones do grow” the important question of man's rights or superiority is established, since his bones grow from the skull downward, her's from the foot upward.

They do not dissect the human frame, so remain ignorant, unless perchance in the excision of the gall-bladder of a pirate for a dainty morsel to give them like valor, or in such butcheries as that of the Taiping. Dr. MACGOWAN, in support of the practice of dissection, also quotes from the *Pun T's'o* (本草), the highest authority. A man of rank, as well as his slave, suffered from abdominal pains. The slave succumbed, and the master opening the body, discovered a red-eyed white turtle. After various trials he found it was soluble in equine urine; he tried it and was cured. Hence the high place in the Pharmacopœia of that excretion, for the treatment of visceral tumefactions and

* *Middle Kingdom*, II, 123.

like disorders. Pin-ts'euk, who flourished in the reign of We Lib, B.C. 468-440, the first to whom a temple was erected, is credited with anatomical knowledge obtained by dissection, as with the theory of the pulse, etc. In the "Golden Mirror," a standard medical work, human anatomy occupies several chapters, in which the principal parts of the osseous system are named and the names anatomically defined. A similar list of terms and definitions occurs in the *Liu King*, or Medical Cyclopædia, by Chénng. WYLIE's *Notes on Chinese Literature* notices 59 treatises of a medical and physiological character. A number of these have anatomical diagrams, such as the one herewith presented, amazingly behind the times for a people who have had such a good start, and who now make such boast of superior knowledge. We have only further to recall the copper man, about six feet high, pierced with many small holes, and on it the names of all the different pulses, as found in the Peking Medical College.

For fuller elucidation of these anatomical guessings and diagrams, we refer you to the *Chinese Repository*, Vol. ix, p. 194, or the *Middle Kingdom*, 119, or a *Treatise on the Chinese System of Anatomy and Physiology*, by W. A. HARLAND, in the Transactions C.B.R.A. Society, I (1848) p. 23.

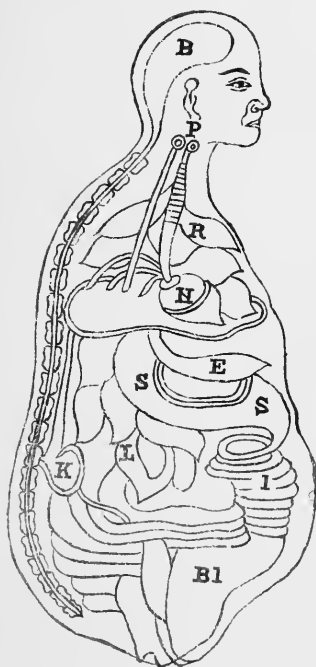
Bibliography.—Beyond what appears elsewhere, sufficient is it to say that the medical literature of the Chinese is very abundant, copious, and *antique*.

CHOLERA has been known in China from time immemorial. Over two thousand years before our era it was described by the very name it now bears—*Fok Lun* (霍亂)—an expression meaning something huddled up in a confused manner inside the body, and which is evidenced by the vomiting and purging. In a supposed work of the Yellow Emperor (B.C. 2500) it is said to be due to the development of three pent-up airs, which give rise to vomiting and purging. An author during the Tang dynasty (A.D. 620-907) attributes it to food and "not to demons." A writer of the Yuen dynasty (A.D. 1280-1368) ascribes it to retained ingesta, aided by certain external influences, such as cold, by which the male principle (*yeung*) ceases to ascend and the female (*yum*) to descend, and the diaphragm is drawn down. Another author, Li-Ting, of the Ming dynasty, (A.D. 1368-1644) ascribes the disease principally to heat, for the reason that it prevails mostly in summer and autumn. Chinese writers divide cholera into the wet and dry; the latter, with no vomiting and purging, is considered the most fatal.

No mention is made in early history of the epidemic (*wan yik* 瘟疫) character of the disease. Cholera is reported to have prevailed as an epidemic in China in 1669, probably brought from Malacca. Again in 1769, and notably in 1820, spoken of as the year of the advent of epidemic Indian Cholera into China,* since which it has re-appeared periodically. From Canton it reached

* See Dr. SIMMONS'S *Cholera Epidemics in Japan*, C. I. M. Customs, for its track on the map.

Chinese Anatomical Diagram.



Peking in 1821 and distributed itself more or less widely. In 1826 and 1840 it again came from India. From 1858 to 1867 it re-appeared year and year, and again in 1877 and 1888.* †

The native treatment of cholera is too large a subject to introduce here. Cholera being an afflictive dispensation of the gods, much is done to appease them. Remedies are abundant, among them acupuncture, cauterization and other forms of external irritation. The following translation of a placard is illustrative:—"A god-like recipe for immediately saving those who have the disease: Whenever a person has the cholera, at once take an earthen spoon, rub it with tea-oil and then thoroughly rub the spine of the sick person with it till small black spots appear. Pierce them with a needle until it touches the bone: the poisonous blood will thus be removed. Dip your hands in cold water, and rub the patient's arms in front of each elbow, also the popliteal spaces, until they are of a black hue. Then apply a burning lamp-wick. For an adult the following: one cup of salt heated in an iron spoon over a fire and then mixed with ginger-juice, boy's urine, and cold water, of each a cupful. The mixture to be given in hot water." Boundless merit to the publisher and distributor of this! Reverently, save printed paper! ‡

Though some years ago we picked up a number of cholera-cure circulars at the time of an epidemic, as an internal remedy we have nothing so full as the following, warranted to prevent or cure, by a Chinese Co.:—*Recipe*.—*Atractylodes rubra* 5 taels, *Sz-chün* soapstone and fresh liquorice each two taels, *Sz-chün Araliæducalis*, Peking mustard, Peppermint leaves, stone sweet flag, *ui'tso kwæ*, realgar, cinnabar, cloves, each one tael; *Sz-chün Magnolia hypoleuca* two taels, *Sz-chün Citrus fusca* peel, Pods of *Gleditchia Chinensis*, old orange-peel, of each 1 tael, *Kunchung* 3 taels, *Libenotus* 1 tael, *Shankük* 3 taels, *Sz-chün levesticum* 2 taels, *Bupleurum Octoradiatum*, *Radix angelicæ*, *Putchuk*, each 1 tael, *Fennel* seed 2 taels, *Boletus* 1 tael, *Platycodon grandiflorum* root 3 taels, *Shuk-kwän*, *Fatha* each 2 taels, *Iris florentina* root, *Anemone hepatica*, each 1 tael. The above 29 ingredients, of some 5 lbs., to be all mashed up together into a very fine powder, Dose for an adult about 1 scruple, for a child 7 grains. The medicine should never be taken without ginger, and a little of the powder should be blown into the nose first. Another prescription is added for a troubled mind, a frequent accompaniment of cholera. §

Counter-irritation or revulsion is a favorite process with the Chinese. This is accomplished by pinching the skin with the fingers or bamboo-sticks or cash, or scraped with a cash dipped in water or oil till the skin becomes livid. One

* GORDON'S Epitome of C. I. M. Custom's Med. Rep., 124.

† *C. M. M. Journal*, December 1888, p. 136, 174.

‡ Foochow Mission Hospital Rep., 1878, p. 5.

§ *C. Mail*, July 12th, 1888.

often sees the neck striped thus. We recently saw an infant whose abdomen had been thus vigorously scraped die of lockjaw. The strong native peppermint is often used locally in headache and neuralgic pains.

The actual cautery is a favorite method. A native work "Eminently Conspicuous Instances of Success in Cautery," in 7 volumes, ascribes the origin of Cautery to K'i-pak, of the 3rd century B.C., and gives description and illustration of nine iron instruments used. Not to delay on blistering and other rubefacient plasters, we come to the moxa, which is peculiarly Chinese, they having employed it from time immemorial. Pin-ts'uek (扁鵲) reign of We Lih (B.C. 468-440) is credited with the practice of the moxa. Thence early Portuguese navigators carried it to the West, where we have also exalted it to the "electric moxa" stage. Another reason for the Chinese conceit that the West has only developed perfected what China imported in the rough. Acupuncture we have referred to, cupping and leeching are found, and cases of blood-letting by means of sharp stone or broken China are mentioned.

The practice of DENTISTRY in China is doubtless very ancient. Toothache and dental decay are due to the presence of worms—so the ancient standard medical books tell us, and a noted Western dentist has published lately a brochure on "Bacteria in teeth." The advantage of priority and size of the worm all in their favor. So the object is to stop the gnawing of this imaginary worm with "pointed black head and brown body."

To preserve the faith of your patient, buy several cleverly made worms *en route* and conceal them under thin paper, pasted to your bamboo spatula. The paper moistened in the mouth easily frees the worms, which are picked out with forceps, killed by the tooth-loosening powder previously applied, or the forceps, and held up to the wondering gaze of the sufferer. This along with the fright and a little bleeding results in a faith-cure at once. Or a less dexterous juggler will rub a medicinal powder on the under eyelid, to entice the worm out through the eye; or the steam of heated hemp and leek-seeds entering the mouth will cause the worm to wriggle out of the ear; or a wad of cotton steeped in peanut-oil and put into the ear will cause the worm to come out of the tooth into the mouth, as will a medicinal powder rubbed on the cheek. Or Camellia-seed oil, or white pepper mixed with clay, or a heated peanut applied directly to the tooth, will kill the worm.

To cure toothache, and prevent other teeth from being attacked by worms, grind the extracted tooth to powder and swallow it. Or the *Dinocarpus longan* mixed with cinnamon, and eaten, or fresh ginger, or fresh indigo-leaves as a poultice to the cheek, or finger-nail ashes put into the tooth, will relieve the pain.

To loosen for removal—for they can't extract a solid tooth—apply a kind of wax or one of various kinds of powders, the following being a recipe for one

such:—*Ma-long-héung* (馬 榔 榔), *Ch'ün-ú* (川 烏), *Ts'o-ú* (草 烏), *Shang-pín-ha* (生 半 夏), *Pák-chi* (白 芷), *Ch'ün-kung* (川 芎), *T'o-kan* (土 狗), *Pák-chéuh* (白 芍).*

A mixture of cinnabar, saltpetre, horse and turtle urine, applied to the tooth, will loosen and remove it.

The above "allee samee" bread-pills, not so the calomel prescription, which either loosens or causes the teeth to fall out.

The patients are led to believe instruments are not used, so the rude forceps or pincers and the strip of iron with a hole in one end for the canine teeth, are apt to be concealed in a cloth. After the loosening powder had supposedly done its work, "the dentist struck the patient several slight blows in quick succession upon the cheek, to divert his attention, while with his right hand he appeared to be rubbing the gum with this cloth, but in fact adjusting the instrument upon the tooth; then with a very quick jerk upwards and outward he dragged the tooth in part from its socket (the patient wincing considerably), but so adroitly as to likely lead the sufferer to think it an accidental catch on the tooth, or perhaps a hasty movement of the hand from the patient's mouth up over his head, as the operator stepped hurriedly back to his traps behind the patient in quest of some more wax or toothache plaster, when, on a repetition of the operation, out came the tooth."

Or it may be snapped out with thumb and forefinger (in this the Japanese are said to excel) or an end of a twisted bit of paper is so adjusted that on the patient closing his teeth the loose one coming in contact with it a quick jerk brings out the tooth.

Teeth are sometimes extracted by means of a strong string, specially when one end is tied to a post, and a sternutatory administered.

The receipts for extracting teeth without pain—horse-sweat a common ingredient—promise that a cough or a sneeze will throw out the tooth.

The insertion of artificial teeth has been practised in China for ages before it was introduced into Europe. Of bone or ivory, the tooth is fastened to the adjoining one by a copper wire or catgut string. If two or more required they are made in one piece, a hole drilled the whole length through this, a double string or wire passed looping over the natural tooth at one end and tied at the other. Costing but from five to ten cents each, a complete upper set may be had for one dollar and a half.

Western methods in dentistry are coming into vogue more or less rapidly.

If permanent teeth are appearing irregularly, a female doctor cuts paper like artificial teeth and puts inside the lips around the teeth and gums for a few seconds, after which it is removed and fine teeth will result.

* Drs. KERR and ROGERS' Article on Chinese Dentistry in *China Review*.

When a child grinds its teeth during sleep, the mother should buy a pig's-tail, cook it ready for the next time, when she should slap him on the face several times, after which he must eat it.

Congenital and second permanent teeth are unlucky, and to be gonged out.

But more strange is the Beat-ut-the-Teeth Miao-tsz custom, with whom two of the front teeth of the daughter must be knocked out before given in marriage to prevent damage to the husband's family.*

DISEASE or Nosology, the *Pak Peng* (百病) "Hundred Diseases."

There are many disease gods, rather disease being sent of evil spirits. There is constant need of appeasing these. The very name of the disease is by some unmentionable, lest the spirit be thus attracted. These spirits may inhabit the patients in shape of foxes, weasels, snakes, etc. The Mongols have a ceremony of prophylactically "killing the (disease) devils." A disagreement between the dual principles of nature, the *Yam* (陰) and the *Yeung* (陽), is another cause of disease, so bad humors, wind, etc. The place of wind, "wind diseases," the fourth of the Imperial College branches, and probably one of the humors of pathology, bad air, vapors, "malaria," the delight of modern invalids, is noteworthy, and dates back to the centuries B.C. in Chinese practice.

There is a god of Malaria, which is a cause of leprosy, etc., so we have prescriptions for malaria. There are a number of diseases caused by wind and due to confined air. Dr. DUDGEON says:—"The Chinese themselves trace almost all their diseases to anger and wine. The former stands first."† Diseases have been divided differently at different epochs: during the Ming dynasty into 13 branches, at the commencement of the present dynasty 11 were recognized by the Imperial Medical College, but the number was afterwards reduced to nine, viz., great blood-vessel and small-pox complaints, lesser blood-vessel complaints, fevers, female complaints, cutaneous diseases, cases of acupuncture, eye complaints, throat, mouth and teeth complaints and bone complaints.

The periodic and seasonal character of disease is also noted by the Chinese.

"Always in treating diseases, whether internal or external, it is necessary in all cases to examine into the origin of the malady by inspection, by hearing, by interrogation and by feeling the pulse."‡

As there are six incurable cases, so disease may prove fatal in six ways:—by its not being examined, by its not being acknowledged, by its being neglected, by the bad choice of a physician, by his not understanding the disease.

* *Jour. N. C. B. R. A. Soc.*, No. 3 (1859), p. 257.

† Peking Hospital Report, 1874, p. 39.

‡ BRIDGMAN'S *Chrestomathy*, p. 499.

In this probable quotation from one of the ancient authors, in the celebrated *Pun Ts'ao*, the sixth is omitted without any reason being given.

As to the treatment of the *Eye*, it is one of the wonders that the Chinese have made little or no progress in this department.

Eye affections are most prevalent. The very oblique curvature characteristic of the Chinese physiognomy tends to disease. Yet it is conjectured the native practitioner more often increases the trouble than effects a cure by his meddling practice, at least in the severer forms of disease. So the proverb, "Your ears won't go deaf if you don't have them examined, your eyes won't go blind if you refuse to use washes." The stories of past success in the surgery of the eye are probably mythical. Dr. PARKER reports a very taking recipe for disease of the iris: "Put one half of a chicken over the eye as a poultice, and eat the other half." A number of treatises on the eye are found. But the 500,000 blind are having desertions from their ranks: hundreds of cataracts alone are opened to the light annually in our mission hospitals.*

The kinds of *Fevers* enumerated by the Chinese are numerous. They note the periodicity of fevers and in diagnosis and treatment have made considerable advance.

They have a number of vegetable febrifuges. A cure for ague is the following: Take a pitch plaster, place a Spanish fly in the centre, either whole or reduced to powder, and apply it between the eye-brows or on the nape of the neck. †

Blood-letting is discountenanced in fever, for "fever is like a pot boiling, it is necessary to diminish the fire (since the phenomena of fever is caused by the fire element of the body) and not the liquid if we wish to stop the fever." But quinine is becoming the usual and effective remedy; almost the first foreign drug found in the shops (not drug stores), it is now scattered widely. They have even a god of malaria. It is said: "of three men encountering malaria, one whose stomach is empty will sicken and die; the other, who has imbibed spirits, will suffer a disease; while the third, who has well breakfasted, escapes unscathed." ‡

There are many notices of fever from earliest times, but the earliest known work on fever dates from the period from B.C. 200 to A.D. 200. During the Sung dynasty a work on Fevers in six volumes appeared.

With no practical experience of the native treatment of Fever, we give the experience of ROBT. FORTUNE, the Botanist, in the interior of China. He says: "In the month of August, I had a somewhat sudden and violent attack of fever—whether from exposure to the sun or other causes, it is impossible to say. Having no medicine, and far from foreign medical advice, I put myself into the hands of a

* (See Surgery).

† Peking Hosp. Rep. 1873, 23.

‡ GORDON'S Epitome of C. I. M. Med. Reports, 118.

Chinese practitioner. When the doctor arrived I was in bed, with a burning fever upon me. After putting several questions as to the time the fever came on, whether I had daily attacks and the time each attack continued, he then felt my skin and pulse, and looked as if he understood the nature of the disease and could cure me. He then forbade the morning bath in the cold stream that flows past the temple, and the use of keme (a kind of vermicelli) in soup, and prescribed a diet of congee for a few days. Dipping the knuckles of his two forefingers into a basin of strong hot tea, he used them like a pair of pincers on my skin, under the ribs, round the back, and on several other parts of the body, every now and then re-wetting his knuckles with the hot tea. He pinched and drew my skin so hard I could scarcely refrain from crying out with pain, and left marks for several weeks after. His medicines having arrived, I was asked to swallow a large paper of about a hundred or perhaps more small pills, which had a hot peppery kind of flavor, with a cup of hot tea to wash them down.

"Then into a tea-pot were put dried orange or citron peel, pomegranate, charred fruit of *Gardenia radicans*, the bark and wood of *Rosa Banksiana*, and two other things unknown to me, about half an ounce of each. Filling the tea-pot to the brim with boiling water, and allowed to stand a few minutes, I was desired to drink the decoction cup after cup as fast as possible, and then cover myself over with all the blankets which could be laid hold of. I lay for an hour ere perspiration broke, when, of course, I got instant relief. The doctor said he would return on the third day about ten in the morning, this being about an hour before the fever was likely to return and, if it did it would be slight, and that then I would get rid of it altogether.

"On the third day about ten, the fever not having come on, the pinching process was repeated, and was if anything more painful. I then swallowed another large dose of pills and the hot decoction, and ere I had drunk the last cupful my skin became moist, and I was soon covered with profuse perspiration. The fever had left me and I was cured. The doctor was evidently much pleased with the results of his treatment of his first 'hung-mo yan' patient."*

The Chinese also first gave the idea of *massage*, the movement cure, and in the earliest periods of Chinese antiquity, some 3,000 years ago, the books declare. In ancient times curing by pressure and friction formed one of the 13 departments of the great Medical College. In a work published at the end of the 16th century is to be found a collection of engravings representing anatomical figures in the act of performing friction, pressures, percussions, vibrations, etc. "At the present day curative and prophylactic gymnastics are to a large extent in the hands of the barbers; besides shaving the head and plaiting the queue, they clean the eyes, ears, and nostrils of their customers; they put

* FORTUNE'S *Residence among the Chinese*, 1853-6, p. 102.

the eyebrows in order, and perform generally what is known in Europe as *maeer* or *massage*. By extending the limbs and gently rubbing them with the palm of the hand, the circulation is promoted, and tone and suppleness is given to the *museles*. The operation generally consists of tapping, kneading, pinching, chafing, and pommelling the body all over, producing the most delightful sensations and proving very braeing. I have known adults put to bed every night by their attendants so operating upon them." * In south-west Kwangtung, where there is considerable overland travel, blind men and girls, with a peculiar rattle, go about the streets and inns announcing themselves as *massageurs*. Among the Mongol this kneading in rheumatism is said to be done by the younger members of the family, or by means of a stick with a great V shaped crook called the "*Rheumatism-curer*." †

Massage is used in muscular fatigue, nervousness, headache, paralysis, rheumatism, pelvic disorders, labor, etc., and 'twere well if more used by us, at the same time giving occupation to a few of the blind about us.

This system was first brought to European notice in the last century, through an article by one of the Jesuits in their *mémoires*, and now widely practised in the West in various new phases, as by steam manipulators, electro-massage rubbers, etc. A recent San Francisco paper contained advertisements of thirteen *massensees*.

On the Chinese *MATERIA MEDICA* somewhat has been said in another place. Almost anything may find a place in their prescriptions—indeed the paper of the prescription itself may be eaten or it may be inserted in the nostril or ear. And while the Japanese consider the Chinese the homeopaths of the East as compared with themselves, the latter may make a full meal off the dose ordered for them or swallow the whole box of pills at once. The "*once-to-be-taken*" remedy is the popular one. The man who resignedly surrendered himself to the piller of Society at the rate of "200 pills a day for 42 days, till in imagination he had become a pill," must have been a hypochondriac. Though for the most part the theory is, everything and much of it, yet we find a school who believe "*no medicine* is the safe medium in *physic*," (*i.e.*, between that which cures and that which kills), or "to take no medicine is as good as a middling doctor." The faith healers are an old school in China.

In the practice of *OBSTETRICS* we probably see more of the sublime and the ridiculous at the same time than in the consideration of any other subject, but consummate ignorance predominates. And is not the faculty in China measurably responsible for woman's inhumanity to woman, as here illustrated, though it be the sin of ignorance. Century upon century of blindest empiricism, with no ray of medical science to shine into these habitations of cruelty. But

* Dr. DUDGEON's Hospital Rep.

† Dr. DUDGEON's Hospital Rep. 1874, 33.

the Sun of China has arisen with healing in his beams and the ministering angels from the West have come with balm from Gilead and must increasingly prove a boon and blessing. The subject is too large, we can only be suggestive.

We have the "Mother" goddess with her two ranks of female Assistants, 36 of one and 72 of the other, the goddess of midwives, the goddess of speedy parturition, of wet nurses, of posterity, and the goddess of Merely (Kun-yam), whose prerogative it is to send sons.

Previously then avoid eating turtles, chickens and ducks lest the offspring be born deaf and dumb. Avoid sight of hares or rabbits, which bring forth their young through their mouth, lest hare-lip or something worse result.

Avoid witnessing execution of criminals, or slaughtering of animals, or seeing a house repaired. Some of us have seen the effects of fright in "Che Mah" from Ningpo, of adult age though but two feet four inches high. As to the actual development of the fœtus in the womb, all this through the "ten months" is given us. In the eighth month of gestation the infant suffers the eight hells. When the mother eats anything hot the child is cast into the "boiling-caldron hell;" anything cold, it suffers the "freezing hell;" the mother is full, the "stone-crushing hell;" hungry, the hungry demon hell; anything hard, the hell of those who are cast down on "the mountain of knives;" the mother walks, moves and labors hard, the hell of those who are "pounded in a stone-mortar;" sits, hell of those who are "fastened to the iron bed;" bows down her head, the hell of those who are "hung head downmost." In an "Account of the Lives of Eminent Women" of a century ago *Mrs. Mencius*, "model mother," says, in the good old days mothers began the education of their children while yet unborn, thus they would not lie on their sides, nor stand on tiptoe, nor look on ugly sights, but converse on serious and appropriate topics, etc., so they gave birth to sons of well-proportioned features and superior talents. Yet as revealing a belief in the heredity of disease mental and physieal, it is added that "a wicked father can no more hope to beget virtuous children" than "a man who has sown the seeds of tares and weeds may hope to earn corn."

In the ninth month we have the three turnings, first that of male children towards the left side, of females to the right. (Sex is also distinguished by the pulse, when "the chih on the left inch pulse rises and swells like a flood the child is male, if in the right wrist, female).

The second manifestation is the child's embracing the mother's heart and liver with both its hands. Sün Sz'-miu (孫思邈) of the T'ang dynasty was deified as the god of medicine, by reason of his superior diagnostic skill in this particular. Called to attend one of the Empresses of the T'ang dynasty in a case of difficult labor, which had baffled the court physicians, by means of a rope of considerable length, as he was not permitted to see her, attached to

the imperial wrist, he pronounced it from the pulse indication a case of the foetus grasping the heart of the mother, and recommended acupuncture, which caused the child to loose its hold, and so the Empress was quickly delivered.*

The third version is the child's placing both feet on the loins of the mother, thus creating an acute pain in each member of the mother's body and making all her joints to loose and shake.

The Chinese, it is said, naturally suffer less and have easier deliveries than Western peoples. Their simple out-door habits are much in their favor. Though pelvic deformities are mentioned, the fact of the children being carried astride another's back for a number of years may have a bearing on the question, not to mention other circumstances. Yet there is much suffering and of a kind not much experienced in most parts—extensive lacerations, rupture of the bladder even, from meddlesome interference, for severe massage is reported in difficult labor, and all the evil sequelæ of such a condition for three, four days and even twelve days as reported. It has been estimated that the mortality of labor cases in China is 8 per cent. This, taking 5,000,000 of labor cases a year, gives a mortality of 400,000 lost in childbirth annually.†

The same native authority quoted above gives four *evil births* to be dreaded: first "the branch-gathering birth," *i.e.*, when the child's hands are stretched over its head, like a person reaching up his hands to break down a branch of a tree; 2nd.—"The flower-treading birth," *i.e.*, when feet first present; 3rd.—"The bowel-expelling birth," where the womb of the mother is injured, and a reversion of the uterine takes place; 4th.—"The salt-begging birth," *i.e.*, when one hand alone presents, like a beggar stretching out the hand to ask for salt.

A good and filial child leaves the mother's womb in the time in which a man rubs his two fingers one upon another. An obstinate demon may require more than two or three days before it is brought forth, then the whole family is pained with solicitude and fear, life is divided between mother and child, *i.e.*, there seems reason to fear that both cannot live, that either mother or child must die. The child is supposed to act its own pleasure as to speedy or retarded coming into the world. Cases are reported of years' tarrying in the womb.

It is well known that the Chinese, as some other peoples, do not remain in the bed at the time of actual delivery, but are supported frequently by a female member of the family and the husband seated on the edge of the bed with a tub below to receive the discharges, or she may be seated on a stool over a tub. The posture has some things in its favor—that of cleanliness and the aid

* *C. Recorder*, II, 166.

† Shanghai A. E. Hospital Report. 1885-1886, p. 9.

of the force of gravity at least—so the more or less upright position after the birth favors the passage of the discharges, clots, etc.

The indispensable midwife keeps up the courage of the household meanwhile. A nuisance generally, often injuriously meddling, as when they tear the soft parts when they think the time is up, or even hook out the parts, some of our doctors report them as of possible service when bidable.

Prescriptions for rendering parturition easy are abundant: lard, cart-oil and slippery elm, and the "hastening pill" appear better than hair of the white cock, ashes of a bowstring, finger-nails, a certain stone, or a claw of the flying-squirrel, which tears its young flying, and they at once fly after it.

So abortion-producing agents are numerous and largely placarded on the walls of cities. The evil of the proceeding seems not to occur to them. The plea may be poverty or other circumstances. Dr. DUDGEON reports the intercession of a woman for such medicine for herself, that her husband being in fever might perspire. The idea is that a pregnant woman has four eyes, and during the period of uterogestation, the husband also has four eyes, and that the husband may perspire it is necessary to divide and break up the four eyes either by natural delivery or abortion.

An arm presenting, the midwife may pinch it or put salt on it, to cause it to be drawn back, or it may be pulled off, in time. Against cross-birth the *Pun T'so* prescribes the ashes of the husband's hair.

"When the face is flushed and the tongue livid, the mother will live and the fœtus will die; the tongue being red and the face livid show that the fœtus will live and the mother will die; moreover, the pains that are felt in the expulsion of a dead fœtus are not the same as those experienced in natural labor."

The birth occurring, the cord is cut with scissors or a piece of broken porcelain, near the navel, or sometimes it is said nearer the placenta measured off to the top of the child's head. This portion slonghing off at the navel for use as medicine. Or it may be done up in rice flour, or with the placenta buried at the outside of the door if a male, at the base of the left door-post, if a female at the right. Should there be retention of the placenta, tie a hempen string to the cord and to the other end affix a weight to prevent it from going back, and in three or four days the whole will shrivel up and come away. The midwife must not be allowed to pull away the membranes: many have lost their lives from this, therefore be very careful.*

The child is wiped with soft paper and laid aside, well wrapped up in any old clothing. Its rice diet begins as soon as it can be made to take it, not waiting for the flow of breast-milk. It gets a bath after several days. Twins and triplets are probably the same in proportion here as elsewhere. "A triple

* Translation of *Midwifery made Easy*, by Drs. KERR & LOCKHART,

birth is the harbinger of evil." We heard recently of a case of quadruplets, but several, if not all, soon died. The mother, after the birth, is kept in a half-reclining posture for a time and not allowed to go to sleep, because it would "produce exhaustion, impede the circulation and cause giddiness." Fresh air is excluded as injurious to the "open pores" of the woman, and ginger-tea and a powder (金不换) prepared from the scrapings of *old commodes* is given to prevent her taking cold.

The third day or sooner she may have begun her domestic duties to a greater or less extent. The wealthy may keep her room for a month as being "unclean," but at expiration of that time occurs the boy-naming, head-shaving, wine-drinking and ginger-eating feast. Should the infant die ere this, it is simply carried off, as not yet having any identity, to some dead-house or infant-tower, without ceremony or burial.

The after-diet of the mother is hearty—an element of it, rice and pickled ginger, hard-boiled eggs and often wine and boy's urine. In the event of her dying within the month she is supposed to be plunged into the "bloody lake" hell, though for a good sum the priests may save her or have her released. Short of actual release or during the tedious process of accomplishing it, pauses in the torment can be obtained by purchasing the privilege of affixing a few hairs cut from the dead woman's head to the inside of a certain bell set apart for this purpose. Every time the bell is struck during the progress of the temple ceremonies, the women whose hair is attached to it rise for a moment above the lake, and are allowed to catch a breath of air. In a temple in the suburbs of Szu-chi there was a bell five feet high crammed full of hair, while alongside of it there stood a firmly packed bale 3½ feet high and nearly 8 feet in circumference, of the same substance, that had recently been removed from the inside.*

There are superstitions about the death of the child, lest its spirit should re-enter the womb, etc.; but we conclude with an infallible recipe for *weaning*. At the age of two or three years, take three of the fruits of the *Gardenia florida* and burn them black, add vermillion and a very little calomel, throw in some oil, and then paint over the eyebrows of the child during sleep, and when it awakes it will refuse the breast. If, however, this should prove ineffective, then paint the breast with Indian ink, and the child, when it sees it, will be afraid, and so refuse the breast. We have some ancient works on Parturition and the Diseases of Women and Children but the references given are no doubt sufficient.

On the subjects of SMALL-POX and INOCULATION a more or less full account has already been given in the *Journal* of December 1887. See also that of Sep. 1887.

There seems to have been a time when there was something of SURGERY to boast of, at least we are well aware of the existence of the *boast*; but there is

* Dr. GORDON'S Epitome of C. I. M. Customs Med. Rep., p. 219.

now hardly anything worth the appellation ; and what there is, is of the character of " meddlesome surgery " born of the merest empiricism.

The Chinese are timid of the knife, and well they may be in view of their dense ignorance of human anatomy. But they have also a deep-seated superstition against the maiming of the body, lest their well-being in a future state be affected by it. The body must be kept intact.

Thus we hear of an extracted tooth pulverized and swallowed, or an excised portion of the body actually eaten, or laid away carefully and reburied with the body.

The God of Surgery came from the Loo-choo Islands.

The Golden Mirror of Practice, the standard authority, tells of the eight operations of Surgery (外治): Feeling (palpation), reduction of fractures, reduction of dislocations, elevation of depressed bones, depression of elevations, trituration, protrusion, and grasping or tension. Their surgical apparatus is limited to ten articles, viz., handages ; a beater, a wooden angel applied to the soles of the feet ; broad supporters of cow-hide, 5 inches long by 3 inches, with two holes at each end, through which cotton strings are passed to bind it on the wounded part ; climbing cords, suspended cords on which to take hold ; piled bricks, three under each foot to straighten the body, being removed as the patient hangs by the cords ; black splints, a piece of pine timber three inches broad, extending from the loins above the shoulders, the inner surface grooved to set close to the back bone ; lumbar splints, four pieces of thin wood with holes for small cords to give corset-like support ; suspensory bandages of rattan or bamboo-matting to suspend the injured part ; pine compresses, narrow splints of wood strung upon cords to bind upon body or limb to close up and compress the wound ; kneecaps, a bamboo-ring with four clasps bound on to give strength and firmness to the joint ; and nine needles, the arrow-headed, blunt, puncturing, spear-pointed, ensiform, round, capillary, long, and great used in acupuncture. *

Acupuncture and the moxa are applied to all manner of diseases where there is local pain or swelling. To these we have referred, as to the actual cautery and dentistry. As to some surgery of the eye, the commonest is that for entropium. As by clamping a portion of the eyelid between two bamboo sticks, tying these firmly together at the ends and causing a sloughing of the enclosed fold of skin, resulting in a contraction of the lid with eversion of the eyelids, or by string over the head drawing lid up or by double-headed bamboo arrow, worked into tissues of lid and skin of forehead, thus everting the lid,† or by hoop of bamboo, one end fixed on the lid, the other on the malar bone.

The barber we know periodically scrapes the conjunctiva, or with long bamboo probe punctures the conjunctiva of the ball, but especially of the upper lids, to ease any inflammation, as well as shaving the nostrils and ears.‡

* BRIDGMAN'S *Chrestomathy*, p. 525.

† Soochow Hosp. Rep. 1883, 27.

‡ Peking L. M. Hosp. 1874, 24.

As of more importance we give a few detached sentences or two from a poem by Soo Tung-po, A.D. 1170, presented to the oculist Wang Yenyo, transcribed by an influential patient on a gilt fan, and given Dr. PARKER after being cured of cataract. "The point of the needle is like the beard of wheat, . . . The eye is so fragile that it cannot endure the least touch, but you, sir, move the pointed instrument within, back and forward, whilst you are laughing and talking and quite at your ease. Those who behold it, start backward because you turn the needle like a hatchet, you destroy the cataract as if you were breaking down a house. . . . At first I did not know, it was the same to pierce the eye as to prick the flesh. You, sir, examined the eye, and cataract, and that cataract was not like the eye. All I beheld (formerly) with my eyes was indistinct and vague. Who opened the empty flower (the cataract), and made it fall off, so that the clear moon may rise, and go down? I presume to ask whether amidst the rejoicings of the whole family, they will forget to talk about your honorable dwelling?"* Dr. PARKER thought from the characters used this indicated couching of cataract, or operation for pterygium.

Harelip, "divided or parted life," a common deformity, is, it would seem, sometimes remedied by applying an escharotic between the edges of the lip, and on this sloughing out the lips of the wound are brought together and heal by granulations.

For gunshot wounds there are a variety of plasters guaranteed to draw the bullets out, beyond this we have never known them to go.

In the way of a splint, some seem to succeed pretty well, the cue possibly taken from foreigners however.

This is about the extent of their surgery, though their skilfulness in the capital operation (amputation between the head and shoulders) has been remarked upon. Not to tarry on Father RIPA's surgical experience, nor on cases of patients going 200 miles to have a splinter removed, or leaving the same protruding from the body for years, until a foreign doctor was met with, we must recall the famous illustration of the Golden Age, that of Wa-t'ò, who in the cholera plague of 1888 sent us an infallible cure via planchette, and is an object of worship for all medical men. His image can be bought for a few dimes in any idol shop.

Wa-t'ò scraped the arrow poison from the bone of the god-of-war, and afterwards sewed it up, Kwan-fu-tsz having refused Wa-t'ò's anodyne medicine, meanwhile chatting with his friends, none of whom dared look upon the ghostly operation. He also excised the eye-ball of an Emperor's son, cut off the diseased portion and replaced it. He would also cut open the abdomen, wash the viscera with medicinal liquids, and stitch it up again. But also on account of the mere proposition to split open the head of Genl. Ts'ò Ts'ò, to let the wind out, he was

* Canton Hosp., 6th Rep.

thrown, whence he went (after decapitation some say) to "wander among the genii," and now reigns as the god of medicine.

VENEREAL AND SYPHILITIC DISEASE was observed and described in China in most ancient times. The Yellow (3rd) Emperor (B.C. 2637) wrote on gonorrhea with its complications of cystitis, nephritis, and epididymitis. He also describes chancres and buboes.* However, the genesis of Syphilis, it is said, must be referred to Canton (though perchance but one of several spots on the globe entitled to that bad distinction), where it was a common disorder at a period probably anterior to the 9th century, whence it spread to all portions of the Empire [to Japan (where a Japanese work states it was known anterior to A.D. 806; † though we also find it first appeared at Nagasaki, said to have been imported from the south (China) in A.D. 1624-41)‡ and elsewhere]. The earliest Chinese work in which syphilis has been described is the *Dermatology* of Tou Hanch'ing, imperial physician during the Northern Sung, at an uncertain period of the 11th century. The blocks from which that early book on cutaneous diseases was printed having perished, it was recut by a descendant of the author in the reign of Lung Ch'ing (1567-72), and printed with additions that are not distinguishable from the original treatise. Although ancient, the work is much valued, and is now to be found in almost every medical library. It is in six volumes, containing thirteen sections. Soyang in Honan was at that time the metropolis, and the residence of the court physician. According to our dermatologist, syphilis invaded Central China from Canton, then known only as a fit place for penal servitude, criminals being banished to that province, and officers who were in disgrace sent to govern it, or in other words, there was little intercourse between the far South and the Great Plain. From Canton it spread over the Empire, the period assigned being the latter part of the 11th century of our era. It was probably conveyed by junk to Japan from Canton, where it is likely that it prevailed for ages before it commenced its northward course. Assuming that syphilis was imported into Europe, its place of export is determined by this record. It may have been by caravan, but presumably it was by ship, Arabians being the carriers of commodities between Canton and the Arabian Gulf in the 8th century, if not anterior to the Hegira. If it be asked, "How did the venereal malady arise?" I answer that, Canton being marshy and hot, without frost and snow, insects and serpents there do not burrow or become torpid, and garbage accumulating on the ground, in the eleventh month (commencement of winter) its moisture and the mountain malaria, mutually fermenting, induced in the physically vitiated what were called genital corroding ulcers, which, like creeping plants or permeating dyes, infected

* *La médecine chez les chinois*, par le Capitaine DABRY, 1863.

† Dr. SCHEUBE'S Contribution to the History of Syphilis, *C.I.M. Customs Medical Rep.*, No. 26 and 27.

‡ Dr. WHITNEY'S *History of Medical Progress in Japan*.

brothels; originating in telluric influences, it became epidemic, and was called the "Canton ulcer."

Not only did syphilis originate in China, but the Chinese were the first to employ mercury in its treatment, a mode of cure repudiated by our author, who claims merit for neutralising its poisonous effects on those who had been subjected to a mercurial course. It will be observed, however, that he employed it (unconsciously) in another form.

The controversy that our author commenced regarding the use of mercury in the treatment of syphilis still continues, but those who, like him, denounce its employment in one form—protochloride—ignorantly use the bisulphide. In the great work that was compiled by and issued under imperial auspices in 1717, "Golden Mirror of Eminent Medical Authors, compiled by Imperial Authority," the chapter on syphilis states that while mercury appears to effect a speedy cure, it merely drives the poison into the bones, whence after a protracted lodgment, it reappears in the forms that we designate secondary and tertiary.*

It would seem, we read, in an old China periodical, that being commonly declined by the regular practitioners venereal cases are given to the care of barber surgeons, who use a singular preparation from quicksilver, cinnabar and arsenic externally. Patients often stipulate with the practitioner that mercury shall not enter into their prescriptions.

And in the same, "The Quacks of Canton employ a most powerful, but dangerous remedy for the venereal disease, which is well known by the name the "Triad Angel Elixir (三仙丹) composed of mercury, a sublimate of mercury, and arsenic, which are thrown together and sublimed, constituting the elixir of the three angels.† Another prescription is saltpetre 3 drams, calomel 5 drams to the dose.

By way of pre-eminence the Canton Ulcer and its fruits are abundant in this Province. The popular estimate is that nine out of ten suffer from its infliction, and yet it probably shows nothing of the ravages it did when first introduced. It, however, complicates many diseases and its sequelæ are manifold.

The use of the gonorrhea bongies at the North, as described by Dr. DUDGEON, is a singular one.

Finally, we give some gleanings on this subject from popular sayings.

The Proverbial Philosophy of the Chinese is abundant, in books, on scrolls, on tablets, in conversation, so most characteristic of the Chinese one of the Branches of Medicine in the Imperial Medical College is Ancient True Medical Saying (太上誠語). We append a few such:—

The prescription was good but the medicine bad. 說的是真方賣的是假藥.

* Dr. MACGOWAN'S "Notes on Chinese Syphilography" *C. I. M. Customs Med. Rep.* October 1883-March 1884.

† *Indo-Chinese Gleaner*, III, 7, 186.

The quack cures the head of a disease, the honest doctor the tail also. 毘去先生醫病頭時來先生醫病尾。

In a dangerous illness call in three doctors. 急病請三師。

If the medicine does not create dizziness you will not recover from your sickness. 若藥不暈眩厥疾不瘳。

Quacks puncture and plaster, but only use spurious drugs. 打針貼膏藥賣藥的用假藥。

Out of ten men eleven have the itch. 十人有十一個人生癩。

A doctor has the heart to cut flesh off his thigh, but never the mind to deceive him. 醫有割股之心並無虛假之意。

The clever doctor can't cure himself. 能醫不自醫。

If a gambler can reform then is there medicine for leprosy. 賭錢能變麻瘋有藥。

Still by a lotus fibre the big salt-junk is bound; and having reached their climax, diseases must turn round. 藕絲繫得鹽船住災殃已滿病自愈。

When a disease returns no medicine can cure it. 反病無藥醫。

The son of the good sorcerer is generally killed by demons; the son of the great doctor often dies of disease. 良巫之子多死於鬼良醫之子多死於病。

With a leper you may sleep in the same bed, but don't stay opposite the door of one who has the itch. 寧與瘋疾人同床勿與疥癩人對門。

Pockmarks are marks of beauty. 痘皮痘得俏。

A teacher will not speak against a teacher nor a doctor against a doctor. 師不談師醫不談醫。

When disease enters the region of the heart, no medicine can effect a cure. 病入膏肓不可救藥。

Diseases enter by the mouth, misfortunes issue from it. 病從口入禍從口出。

Nine of every ten have fistula. 十人九痔。

Before the small-pox and after the measles—are the critical periods. 痘前疹後。

The ordinary physician kills men. 庸醫殺人。

The good medicine is bitter. 良藥苦口利於病。

The body may be healed; but the mind is incurable. 醫得身不醫得心。

Give a man a golden pill, and the devil of his disease will depart in a trice. 投以金丹病摩立退。

There is a medicine for sickness but none for fate. 醫得病醫不得命。

When Jin Wong (the king of hell) has decreed a man shall die at the third watch, no power can detain him till the fifth. 閻王注定三更死勢不留人到五更。

DISCUSSION.

Dr HASLER asked on what grounds Dr. Thompson thought the Chinese ahead of us in some branches of obstetrics?

Dr. HODGE thought we might possibly utilise the native barbers for massage. He asked for information as to the oil cure for opium suicide; said he had

known a native doctor douche a man with cold water, as well as making drink large quantities, in the hope of bringing him round. Said the Chinese recognised that consumption was infectious; referred to the common practice of native doctors to recommend opium in any cases they cannot cure; gave instances, and said that in our fight against the evil we must not lose sight of the great influence of the native faculty in spreading the evil. Asked for information as to their treatment of fevers. Dr. THOMPSON said, in his reply, that they claimed to use gurgon oil as a remedy in opium suicide. He only intended to suggest that in midwifery there were some things we might possibly learn from them.

Dr. MORLEY found the native massage very effective in relieving the pains of opium-smokers; allowed every opium-smoker in his hospital to call in the native barber twice a day at the hospital's expense.

Dr. LYALL thought that native doctors treated ordinary febricula fairly well; they used strong diuretics and diaphoretics, and gave large quantities. Dr. PORTER thought one reason why they distrusted us was that we gave so little medicine. Dr. THOMPSON pointed out that all Chinese looked upon us as *outside* doctors, and thought we knew nothing about internal diseases. Dr. PORTER said that many fevers ran their course with a tendency to get well. Thought a large percentage of the successes of the Chinese doctors due to the fact that their patients' strength was sufficient to bring them through; did not consider the native faculty were really more successful with fevers than ourselves. Dr. HUNTER said he had an assistant who had a very good knowledge of disease; his family for three generations have all been doctors. He cured a case of menorrhagia where he (Dr. Hunter) had failed. He gave a decoction of two native roots in vinegar, one of which was white peony root, and he explained their action rationally by saying they were all astringent. He thought we could learn much from the native faculty, and that all this bore on the training of our students. Doubted if ever we shall be able to put a number of students into practice on purely foreign lines. Many of the native remedies are good and useful, and our students, to make a living, must modify the native practice. Dr. THOMPSON thought it well to conform to native prejudice, and *always* feel both pulses. Dr. BOONE utilised the native barbers in suitable cases, but superintended them.

Dr. J. C. THOMPSON then read the following letter of greeting from Dr. Lockhart.

"As the oldest surviving Medical Missionary, I wish to send you, all good wishes for your every success in the Meetings you are about to hold. May the presence and blessing of the Saviour guide you in all you do, and may you all return to your stations refreshed and strengthened in mind and spirit. As you know, I am a Medical Missionary, and have spent many years in the land of

China, endeavouring, as far as I could, to make the Medical Work among the people the means by God's blessing of bringing them to the feet of Christ. I went out in 1838 and saw all the great changes that have taken effect and result in our now free intercourse with the Chinese people. I can say with perfect truth that I have never for a moment regretted that I went to China; the enthusiasm that took me sustained me to the end. I ever thought it the best course I could have taken and the best life I could live by spending it for Christ in China, and I believe it still. I was far more grieved when I left China than ever I was when as a young man I left home to do God's work in the far off land. I do not wish to send many words of greeting to you all, but desire that in all your Conference, the influence of the Holy Spirit may lead and guide and bless you each one."

On the motion of Dr. KERR, seconded by Dr. WATSON, the Secretary was instructed to prepare a suitable reply, which the President was also requested to sign.

P A P E R .

3.—By H. T. WHITNEY, M.D., *Shanghai*.

Advantages of Co-operation in Teaching and Uniformity in the Nature and Length of the Course of Study.

Education is a relative quantity and dependent on talent and instruction, so that the depth and completeness of individual education depend both upon natural ability and the nature and extent of the instruction.

Co-operation in its true sense implies increased facility and additional privilege.

Uniformity implies equal advantages to all.

These being the principles involved in our subject, let us seek to discover their relations and application.

In every age each country has its own institutions and its own peculiar duties, and each age, also, requires an education and fitness adequate to meet all of its duties and responsibilities.

And as the former systems of education in our own lands would be wholly inadequate to meet the demands of the present time, so we find it true in China, that her ancient institutions and methods of instruction wholly unfit her for a proper performance of the duties which lie at her door.

The influence of Christianity and foreign diplomacy; the progress of Western science and commerce; the introduction of Western inventions, such as foreign arms, gunboats, steamboats, the telegraph, railroads, etc., all reveal

with glaring prominence the inability of *old* China to meet the growing demands of the *new*, and the consequent importance of new institutions and new systems to enable her to keep abreast of the advance of civilization even within her own borders.

And it is in aid of this, as one of its ultimate objects, that Medical Missions are established in China.

In harmony, therefore, with this purpose, we come to the consideration of the duties of the present hour.

It is well known that China has no medical schools, nor any system of medical instruction to offer her pupils. The native students of to-day have to feed upon the dry husks of the past. The medical part of China, as in all ancient countries, we know to be full of ignorance, superstition and error. To graft a new scion upon such a dead tree, with any hope of growth or fruitage, would be the height of folly. And Western physicians, perceiving this status in the beginning, have wisely set to work to prepare a complete series of Western medical works in Chinese, to admit of imparting to Chinese medical students a complete course in Western medicine.

The great opportunity now open to us is the completion of these Text-books, that we may have at an early day a full curriculum to offer all students of medicine throughout China.

And to this task co-operation is not only invited but absolutely required if we would hope for the most successful results.

The classic language in universal use: the Mandarin dialect, with certain regional differences, available in nearly half of the Empire, and more or less prevalent in all the provinces; the extensive local dialects like the Canton, Swatow, Amoy, Foochow, Ningpo, Shanghai, Hankow, etc., all open up to us a wide avenue through which to reach the intelligent classes both orally and by means of the *printed page*.

But the first step in this great work is the formation of a uniform medical nomenclature. Without this, foreign physicians in China cannot work together to advantage, and the native students will also be largely hindered in their efforts to learn Western medical science, owing to the confusion of terms in the Text-books and the medical literature which is certain to be created in coming years.

The second step in co-operative work is a united effort of the physicians in China to not only complete the *regular* medical Text-books but to prepare works on the *special* branches as well. And also begin the development of a medical literature, the most needy kind of which is a well-edited illustrated medical journal.

The third step in co-operative work is to endeavor to secure in the various mission schools two forms of preliminary instruction, *one*, the teaching of the first principles of Chemistry, Natural Philosophy, Physiology, and Hygiene.

These branches in connection with the other studies taught and the disciplinary training secured at these schools is all important as a preliminary step.

The second form of instruction desirable is that obtained through "industrial training."

The whole civilized world, during the past few years, has been waking up to the importance of this kind of school training. And it is fully as important in mission schools as it is in our home schools.

The value of this to medical students is, that it makes them more skilful in the department of surgery,—a form of practice in constant requisition in China.

A physician who has not been accustomed to the use of tools, except he be a mechanical genius, will usually be an awkward, bungling operator.

Even the man who was only a good whittler in boyhood, will open an abscess or remove a tumor with more ease and grace than one who has not had this practice.

So that it matters not so much what particular kind of work is done provided the student is made familiar with the use of tools.

Every effort that is made to secure this kind of preliminary training for students in our mission schools, will not only be equivalent to so much medical training, but it will be the very best kind of co-operative work.

It will be observed from these remarks that we look for medical students to come from the mission schools. This is exactly our position. We hold that as far as possible, all medical students trained by medical missionaries, shall have had some preliminary training in a mission school. And not only so, but it is eminently desirable that every such youth should be a professed Christian. A large part of a medical missionary's work is necessarily secular, but, as missionary physicians, it is certainly our duty to endeavor to raise up a Christian medical profession in China.

The position taken in regard to the preliminary training in mission schools, applies equally to boys and girls, since the teaching of medicine to young ladies has already begun, and the co-operative work done for them not only relates to those who may be selected for medical students, but also to those who are to be scattered among the masses, as they will make more intelligent patients and help both us, and the native physicians who go out from us, in practising among the people.

We come now to the specific work of the physician in teaching the student.

There are several good reasons why work of this kind should be co-operative.

In the first place, no one man is sufficient for such work and do it well.

Medical missionaries, from their own standpoint at least, are the busiest and hardest worked class of laborers in the field. And what they do in teaching is apt to be just so much extra work, after performing all their ordinary medical duties and a good deal that is not medical.

Then, again, the physicians are scarce that can turn themselves into good sevenfold Professors.

It was said of the late Mark Hopkins, Ex-President of Williams College, U.S., that wherever one found President Hopkins and one student, there was a college. But it is not often the case that such words can be said of any one individual. And, besides, it is better to have a variety.

Students confined to the influence and teaching of one person for several years cannot obtain that depth, variety, and fullness of development that is possible with several teachers.

Then, too, physicians are not equally proficient in all branches of medicine, and some have special preferences and adaptability for certain lines of teaching. One prefers Anatomy, another Physiology, another Theory and Practice, another Surgery, and so on; and where these preferences can be utilized it secures for the student a more thorough training.

This applies not only to text-book but also to clinical teaching.

Different physicians employ different methods to teach the same truth.

Some also bring out points of diagnosis or treatment that might not suggest itself to others. Then, again, it is always helpful to secure, when possible, the co-operation of community physicians in places where there are such.

Even if they do not know Chinese, and the students cannot understand anything they say, yet they learn a good deal by observation. This is especially helpful in surgery, where different physicians employ different methods of operating.

The students are quick to note the difference, even if nothing is said.

This helps to a broader view of medicine.

Students, also, *enjoy new faces*, and they try to do better when their teacher has company. It helps to stimulate them to greater activity, and to stir up an ambition to be thorough and competent.

To make an application of these thoughts, when two or more missions are located in one place, it would be better to unite their forces in work of this kind, and also bring the students together, if possible. But if this is not convenient, then plan to give each student the benefit of united instruction.

There is one more phase of co-operation under this part of our subject, *namely*, the importance of securing the help of one or more of the missionaries in the endeavor to fortify the students with Christian truth, and develop in them a strong Christian character, that they may go out, like Luke, the beloved physician, to exert an influence of saving good among the people, as well as attend to their physical ills.

The Second Part of our Subject relates to Uniformity in the Nature and Course of Study.

The uniform nature of *regular* medical studies has been so long established in Western countries that a student seldom thinks of it in deciding which medical

school to attend, but rather of the differences in Professors, the extra lectures, the superior clinical advantages one institution offers over another, and the comparative cheapness of colleges in proportion to the greater facilities they afford for obtaining a thorough medical education.

As yet no distinctions of this kind can be made by Chinese medical students, as usually only one place is open to them.

However, we should endeavor to provide for them the best we can.

No course would be considered complete without some knowledge at least of the *seven regular* branches, and yet, such are the peculiar conditions in China, these branches are not all of equal importance.

For instance, *Obstetrics*, except with lady students. But a general knowledge of the subject, in the present state of practice in China, is as good for men students as a thorough acquaintance with all its details.

Chemistry also can be limited to a few first principles, with *some* knowledge of Physiological-Chemistry.

Materia Medica may be limited to *one* or *two* hundred remedies with a knowledge of their *action* and *therapeutic* use.

The *principles of surgery* need to be thoroughly taught, but in practice it is not necessary in the majority of cases to go much beyond minor operations.

Those who are to remain in hospitals require a more extensive knowledge, and they necessarily obtain it.

I cannot agree with some that a smattering of *Anatomy* is sufficient for Chinese students, but that *this* with Physiology and Practice, including of course Pathology, should be thoroughly taught as the necessary prerequisite to an intelligent understanding of the healing art.

In addition to the regular seven branches, whatever can be furnished commensurate with the needs of students, such as separate works on skin diseases, syphilis, diseases and operations on the eye, diseases peculiar to women and children, and operations upon special organs, etc., should also be taught.

Thorough instruction in vaccination should be given, and the students impressed with the importance of helping to secure a more extensive introduction of pure virus and the foreign method of vaccinating.

The *time* that should be required for a course of instruction cannot be regarded as a fixed quantity, because there are several modifying conditions, first the time at the disposal of the physician for teaching, and the plans, circumstances, and future prospects of the students are to be considered.

If there are several to assist in teaching, and the student merely plans to sell medicines, vaccinate, and get a little practice in his own town and vicinity, three years is sufficient, though this presupposes that he has come from a mission school, otherwise a longer time is necessary. If the physician has to do most of

the teaching, or if the student is expecting to practise in any of the ports or cities or have a position in a hospital, five years at least are necessary.

Hitherto students have not been taught with a view to entering government service in the army or navy, but if circumstances in the future should point to such an opening, mission hospitals should plan accordingly.

Too much stress has been laid upon the idea that native students must first learn English in order to become skilful physicians.

Foreign physicians are apt to look at China from a Western standpoint instead of the actual condition of things as they are. A country that is back in the "Middle Ages" in medical practice is not prepared to appreciate or utilize the most advanced results of Western medicine. But as fast as they *can* or *will* receive them, their own language is a competent medium through which to impart them.

For the present, the course which has been indicated, and the time required to complete it, is sufficient for all her requirements.

We will now briefly recapitulate the main points of this paper, which are as follows :—

(1.) That China being destitute of any scientific medicine of her own, it is our duty to co-operate, as far as possible, in all efforts to secure to her this blessing.

(2.) That the first step in the right direction is to provide a uniform medical nomenclature, furnish a complete series of medical Text-books, and develop a medical literature.

(3.) That mission schools should furnish definite preliminary instruction to medical students, and, as far as possible, all medical students should be Christians and selected from the mission training schools.

(4.) That physicians should co-operate, as far as possible, in giving instruction, and ministerial aid should be secured in completing the religious training of the students.

(5.) That the course of study should embrace the regular seven branches of medicine taught in all Western colleges, and the most important of the special branches.

(6.) That the *time* of study should range from three to five years, according to the student's preliminary training, the teaching force and the future plans of the student.

(7.) That the stated curriculum and period of study correspond to the present requirements of students in China.

The morning sitting then adjourned.

(Wednesday Afternoon, May 21st.)

The President, H. W. BOONE, M.D., in the Chair.

Secretary, The Rev. S. R. HODGE, M.R.C.S., L.R.C.P. (*Lon.*)

The meeting was opened with prayer by Dr. Macklin of Nankin. The adjourned discussion on the papers of Drs. Lyall and Whitney was then opened by Dr. ROBERTS, who, whilst thoroughly agreeing with all that Dr. Lyall had said, especially emphasised the advantage that such co-operation would give in opening up new stations.

Dr. HODGE dwelt on the need for mutual help and consultation.

Dr. WATSON had found the question very satisfactorily settled in his own case, his wife being a doctor. Recommended all his bachelor friends to bear the hint in mind.

Dr. TAYLOR asked for information as to whether his brethren thought it wise to have separate hospitals for women. Dr. HODGE thought it was. Experience had led them, in his own mission, to adopt that course with satisfactory results. A better class of patients was reached. Saw women at Wuchang himself, but never attempted any gynæcological work. Had known a woman leave their women's hospital rather than allow him to see her in consultation. Dr. HASLET also bore testimony that a better class of patients come to a purely woman's hospital. Dr. LYALL had for many years had men and women under him in the same building; he had not, however, found it satisfactory, and was now building a separate woman's hospital. Dr. DOUTHWAITE said we should consider the needs of the field as a whole, and, although he quite appreciated all that had been said, he himself could not ask for a colleague whilst there were so many places without any doctor at all. He insisted upon the need of a *thorough* training of a Chinese student *before* he took up medicine. Our students, as a rule, are insufficiently grounded before they come to us. Ordinary Chinese training only develops the *memory* and not the reasoning faculties. Recommended that all students should be put through a course of mathematics.

Dr. LAMBERT emphasised the need of better men at the big centres. Having been engaged in both medical and also purely evangelistic work, he could testify that the *strain* of the former was incomparably greater than that of the latter. A man without a colleague is unable to take the relaxation afforded by a country tour, and, not unfrequently, though lack of a successor to his work, has to prolong his stay in the country far beyond what was wise for his health. Thought this was not sufficiently recognised at home, and that too little consideration was shown for the medical man's health. Medical

Missionaries should have more frequent vacations home and more help in the great centres of work.

The PRESIDENT thought it good that two men should work together in the large centres, and suggested division of their work: two hospitals, one for women and one for men, worked by different doctors, but as departments of one hospital, the most economical course.

P A P E R.

4.—By Professor E. P. THWING, M.D., PH.D., *Brooklyn, N.Y.*

Western Methods with Insane Chinese.

Is there a demand for Lunatic Asylums in this land? Do the native population ask for the application of Western methods in the treatment of their insane? We must admit that there is no popular call for such a movement. The mass of the people are indifferent alike to the gospel, and all the sweet humanities of life which are born and fostered by it. Do the educated and wealthy natives ask for foreign aid in this matter? I have yet to learn of any general demand. Their mental horizon is somewhat broadened by thought, observation and business intercourse with us, but they have the same apathy in the matter. It is foreign to their way of thinking. There is no public spirit here, that impersonal but mighty impulse which at home represents hereditary instincts which are the growth of centuries of Christian thought.

With my honored colleague, Dr. JOHN G. KERR, I have visited wealthy native citizens of Hongkong and Canton and laid before them the proposition of a Lunatic Asylum which would bring relief to their suffering kinsmen. They listened courteously, but declined to do anything. I have seen individuals of influence alone and only secured a general and somewhat languid approval, but no promise of help for their countrymen, inasmuch as they have their own way of dispensing alms.

But, for all this, there is an imperative call for this undertaking. It is found in the necessities of the case, in the actual condition of many of the people. The demands of humanity require it of us. We ask, not what they want, but what they need. The heathen do not ask for bibles and missionaries, but they need them all the same. Moreover, the scientific instincts of an educated physician at this age of the world will not allow him to rest when this department of our medical equipment is so sadly deficient. The profession at home are making the whole field of mental diseases a prominent study, and look to their brethren abroad for valuable contributions. The researches of the lamented Dr. GEORGE M. BEARD, of New York, gave a great impulse to Medical Psychology.

In some sense as a memorial of my friend, the Academy of Anthropology was founded by me the year of his death, 1883. The co-operation of his associates, and of many eminent alienists in America and Europe, have broadened and enriched its scope beyond the anticipation of those who began its unpretentious work. The physical and psychic factors of disease; the social, civic and political; broader still, the racial tendencies—are hints of the materials of a unique and opulent department of study. Foreign physicians can aid materially in these researches.

Assuming the need, how shall we secure the introduction, of Western methods? Smoke precedes the blaze. Agitation precedes accomplishment. Eighteen years ago Dr. KERR's report of Canton Hospital called for this step. Reports from other hospitals say that applicants are refused for lack of suitable accommodations, and persons competent to undertake the custody, care and cure of lunatics. At the semi-centennial meeting of the Medical Missionary Society of China, the matter was put into the hands of a Committee, who reported, January 24, 1890, recommending that the work be taken up by a separate organization. February 18, a Provisional Committee was formed to inaugurate plans for an Asylum in Canton or vicinity. They determined, first of all, to prepare in the Chinese language, and circulate, literature on the subject of insanity, its causes and cure; also to prepare plans of buildings, and show the Western methods, and urge upon society the duty of supporting such an institution. A pamphlet embodying these ideas has been printed with an English version and additions. Also subscription books have been prepared. The first money received came from Japan. As the details of architecture, location and general conduct of such an asylum are now published and accessible, I will not rehearse them, but hint at a few other essentials of a successful introduction and application of Western methods.

One vital requisite is to have a superintendent who is thoroughly versed in the treatment of lunacy and as thoroughly acquainted with Chinese themselves. Chinese characters are hard to understand, but Chinese character is still harder to read. Spain is called a riddle, a land of contradictions, where "two and two make five," but I find more surprises, antitheses and incompatibles here than in the Iberian peninsula. The true basis of remedial science is a knowledge of man himself in his historic development, his changing conditions and environments. There is an umbilical cord that binds him to past generations. We must understand the hereditary instincts of the Chinaman, his individual, social and religious life, the mental and moral, climatic and political conditions which mould his being and thought in a normal state, in order to treat those disturbed and tyrannizing mental conceptions which we call insanity.

Competent attendants are equally important. To ensure harmony and efficiency of action, they should be appointed by and made directly responsible to

the medical superintendent. To this end the study of mental diseases should be included in the curriculum of medical students here, as at home. It should be not only preceptive, in the form of lectures and recitations, but largely clinical, with reference to the actual care and cure of lunatics. Male nurses might also be trained at the same time in this work. A trustworthy steward is needed to attend to the material and pecuniary matters of the asylum. He should be a foreigner. It would be well to anticipate and prevent misunderstanding to have agreements in writing as to the custody of the patients and all matters pertaining to their support, control and disposal. People of the East are litigious, suspicious, distrustful. New, strange schemes like this, need guarding in every particular, at the start. Clinical details should be kept with the minuteness and fulness of Western asylums. These data will be helpful here, and valuable to those of us who at home are gathering information in reference to Eastern nations, their susceptibility to certain diseases, their immunity in others, the modifying influences at work, and ancillary topics.

It is of prime importance that there should be agreement as to the nomenclature used by alienists of the East. At the Saratoga Conference such a basis was reached, and the crowning work of the Paris Congress of Mental Medicine was the adoption of a system practically the same. The discussion was earnest and the result was reached with unanimity. Details may be found in the *Medico-Legal Journal*, a New York quarterly. This uniformity of definition and classification is needed to secure the full value of the statistics of neuropathic conditions, gathered from all parts of the world. And this is but one of many fields of professional activity in which we need to act in organized unity and co-operation, the world over.

Finally, I congratulate you in this humane and beneficent work now initiated, which furnishes this people a conspicuous example of the spirit of Him who taught, not "the survival of the fittest," but the restoration of the suffering and the lost. Believing Christianity to be the highest expression of human civilization, we seek to make it a regnant power in this land. The premature introduction of the material, mechanical civilization of the West, with all the anarchical strifes attending it, would, as Laffitte suggests, be likely to produce violent perturbations in China. But if the gospel has a priority and a pre-eminence, it will forestall disaster, and by its humanizing and philanthropic spirit prepare the people for those new social relations and economic conditions which are its legitimate fruit.

Dr. LYALL moved a vote of thanks for the very valuable paper which Professor Thwing had read. This was seconded by Dr. PARK and carried *nem. con.* Professor THWING made a suitable reply.

The following business was then attended to :--

The report of the Committee on nomination to the offices of the Society

for March 1890 was presented, and on the motion of Dr. PHILLIPS, seconded by Dr. WATSON, received.

The following elections were unanimously confirmed :—

President :—A. LYALL, M.B.C.M.

Vice-Presidents :—

North-China Division. —J. F. ROBERTS, M.B., C.M.

Wuchang and Hankow. —A. MORLEY, M.R.C.S., L.R.C.P. (*Lon.*)

Shanghai and Nanking.—R. BEEBE, M.D.

Fukien and Formosa. —V. S. TAYLOR, M.D.

Kwang Tung. —M. FULTON, M.D.

Hon. Secretary.—S. R. HODGE, M.R.C.S., L.R.C.P. (*Lon.*)

Hon. Treasurer.—T. GILLISON, M.B., M.Ch.

Board of Censors :—E. T. PRITCHARD, M.B., C.M.

T. R. WATSON, M.B., M.R.C.S.

D. GRANT, M.B., C.M.

K. C. WOODHULL, M.D.

W. E. MACKLIN, M.D.

J. M. SWAN, M.D.

Dr. LYALL, as President Elect, briefly acknowledged his appreciation of the honor conferred upon him.

The following gentlemen were elected Honorary Members of the Association :—

Dr. S. W. BUSHELL, Pekin, proposed by Dr. Watson, seconded by Dr. G. Y. Taylor.

Dr. J. T. LEONARD, (U.S. Consul-General), proposed by Dr. Porter, seconded by Dr. Macklin.

Dr. JOHN DUDGEON, proposed by Dr. G. Y. Taylor, seconded by Dr. Hunter.

The following were elected Corresponding Members :—

Rev. A. G. JONES, Chao Ping, Shantung, proposed by Dr. Roberts, Seconded by Dr. J. C. THOMSON.

Mrs. Dr. CORBETT, Chefoo, proposed by Dr. Hunter, seconded by Dr. J. C. Thomson.

Rev. E. C. SMYTHE, Chao Ping, Shantung, proposed by Dr. Watson, seconded by Dr. Hunter.

Moved by Dr. J. G. KERR, and seconded by Dr. J. C. THOMSON :—

“That this Association cordially respond to the invitation of the International Congress of Medical Jurisprudence, and will cheerfully interchange publications and correspondence.”

At the special request of Professor TITWING (speaking in the name of the International Congress) Dr. H. W. BOONE, the President, consented to become an Honorary Vice-President of that Society.

The following Committee on Medical Nomenclature was nominated by the President :—

P. B. COUSLAND, M.B., C.M.	H. D. PORTER, M.D.
A. W. DOUTHWAITE, M.D.	S. A. HUNTER, M.A., M.D.
WM. WILSON, M.B., C.M.	J. G. KERR, M.D., (<i>Chairman</i>).

Moved by Dr. HODGE, and seconded by Dr. HUNTER, and carried :—

“That the Committee on Nomenclature be instructed to confer with the School and Text Book Committee of the General Conference on the general subject of nomenclature, but with perfect freedom to all independently.”

The PRESIDENT brought forward a proposition for the preparation of an anti-opium pill, not containing opium, to be prepared and recommended by this Association. Some doubts having been expressed by Drs. MORLEY and HODGE as to whether the gradual reduction system were not the better one for non-qualified persons managing Refuges, Dr. BOONE agreed to the substitution of the following resolution, which was moved by Dr. HUNTER and seconded by Dr. LYALL :—

“That a Committee of three be appointed by this Association to prepare a tract in English upon the treatment of the opium habit, containing formulæ of remedies which may be used for the purpose, such remedies not to contain opium or its alkaloids, and to be such as this Association can with confidence recommend to the missionary brethren for use in Opium Refuges and elsewhere.”

Carried.

The President nominated the following Committee :—

J. G. KERR, M.D.,	A. LYALL, M.B., M.Ch.
J. R. WATSON, M.B., M.R.C.S.	

to which, at the request of the meeting, the President consented to add his own name.

Moved by Dr. DOUTHWAITE, seconded by Dr. TAYLOR, and carried :—

“That a Committee of five be appointed to collect information on Chinese Materia Medica, and that the results of their investigations be published annually in the Journal.”

The President nominated the following Committee :—

A. W. DOUTHWAITE, M.D.	WM. WILSON, M.B., C.M.
J. B. NEAL, M.D.	J. C. THOMSON, M.D.
W. H. PARK, M.D.	

Moved by Dr. MATHEWS, seconded by Dr. HODGE, and carried :—

“That the inclusive proceedings of the present meetings be published consecutively in a Conference Number of the Journal. Such to

follow the June issue as soon as possible, and to take the place of the September Number if practicable."

A long discussion took place on the question of an appeal to the home churches for more medical men, and finally the following motion, proposed by Dr. ROBERTS and seconded by Dr. TAYLOR, was carried:—

"That a Committee be appointed to draw up an appeal to the home boards, urging most strongly that in every large centre there be appointed two medical missionaries, and that the reason for the appeal be also stated."

The following Committee was appointed by the President:—

A. W. DOUTHWAITE, M.D.	B. C. ATTERBURY, M.D.
K. C. WOODHULL, M.D.	JOS. C. THOMSON, M.D.
E. REIFSNYDER, M.D.	A. LYALL, M.B., M.CH.
J. F. ROBERTS, M.B., M.CH.	

The following Resolution was moved by Dr. PORTER, seconded by Dr. PARK, and carried:—

"Resolved, that we have heard with much interest of the inauguration of a scheme by Dr. Kerr and Professor Thwing for the establishment of an Asylum for the Insane in Canton, and that we wish them the greatest success in the accomplishment of this humane and much-needed object. Also, that we recommend that efforts be made to establish similar asylums in other parts of the Empire."

Dr. KERR moved and Dr. TAYLOR seconded:—

"That the thanks of this Association be conveyed to the officers and trustees of the Union Church for the use of their Lecture Room."

Carried.

Moved by Dr. HODGE and seconded by Dr. MATHEWS:—

"That when a nomination for election is issued in the Journal, unless any Censor lodges an objection to any such nomination, it be concluded that such nomination is satisfactory. In the event of any such objection being lodged, the President shall take steps to postpone the election for further enquiry."

Carried.

Moved by Dr. THOMSON and seconded by Dr. HODGE:—

"That the following words be added as §2 to article 5 of the Constitution:—'That the Editor of the China Medical Missionary Journal be an officer of the Association.'"

Carried.

Resolved, on the motion of Dr. PARK, that the Secretary be instructed to cast a ballot for Dr. Mathews as Editor of Journal.

Dr. LALCACA expressed thanks on behalf of himself and colleagues for being permitted to take part in the discussions, also of his sense of the value of such an Association, as that of the Medical Missionary Association of China.

At the request of Dr. PORTER the following was ordered to be entered on the minutes :—

“That all Medical Societies, Practitioners and Medical Missionaries in China are cordially invited to send any medical papers, hospital reports, statistics and periodicals which they may publish or be interested in, to the Newbury Library, Chicago, Ill., U.S.A., to form part of a universal medical reference library now established. That any persons thus interested are cordially requested to communicate with Rev. E. W. Blatchford, Trustee of the above-mentioned library, 375, LaSalle Avenue, Chicago, U.S.A.”

The same request was presented for the Army and Navy Museum, Washington, District of Columbia, U.S.A.

(Afternoon Session, 22nd May 1890.)

The President, H. W. BOONE, M.D., in the Chair.

PERCY MATHEWS, M.D., F.R.G.S. Acting Secretary.

The Rev. Dr. HUNTER offered prayer.

The routine business being disposed of, the members present then signed the Constitution.

The following gentlemen were duly elected to the Membership of the Association :—

G. A. COX, L.R.C.S., L.R.C.P. (*Edin.*), L.F.C.P. & S. (*Glas.*)

Dr. J. J. ATTWOOD of Chicago.

Dr. HENDERSON of Chefoo.

Dr. BUSHELL of Pekin.

HOWARD TAYLOR, M.D. (*Lond.*), F.R.C.S.

The Committee on Nomenclature reported progress.

Moved and seconded :—

“Whereas the great prevalence of Small-pox in China is well established and fully known, and whereas three cases have occurred among members of the Missionary Conference during the time it was convened, and two deaths have taken place among the Missionary body in other parts of China during the same time, therefore

“Resolved, that we recommend the various Missionary Boards to require successful revaccination as a necessary condition of appointment to Missionary work in China.”

After a discussion, in the which nearly all the members took an active part, the motion was unanimously carried.

It was then proposed and seconded :—

“That this motion be conveyed to the Home Boards by the Medical Missionaries connected with the various Societies, together with a letter of explanation.”

Carried.

Moved and seconded :—

“That in order to secure a uniform system in making up our Reports, the Classification of Diseases issued by the Royal College of Physicians and Surgeons of England be adopted.”

Carried.

A discussion ensued as to the desirability or otherwise of translating the Society Anti-Opium Tract into Chinese. The matter was dropped.

It was then proposed and seconded :—

“That as this Association never gave authority for the suspension of Article 7 of the Bye-Laws, and inasmuch as many heavy expenses connected with the various important Committees appointed by this Conference are to be anticipated, Be it enacted that the Treasurer call in all Dues for 1889.”

Carried *nem. con.*

A vote of thanks was then moved to the Secretaries for their arduous and valuable services. Carried unanimously.

A vote of thanks was then moved to the President for the courteous and able manner in which he had carried out the duties of Chairman. Carried unanimously.

The President made a suitable reply, referring to the pleasure afforded him by meeting, and having such pleasant communion with his brethren of the profession for the past few days, and in thus officially parting with them, he would bid them farewell and God-speed.

Moved by Dr. MATHEWS, seconded by Dr. KERR :—

“That this Conference do now adjourn *sine die*.”

Carried.

A suitable service of prayer was then held, in which the work and the workers were commended unto the Lord.

ALPHABETICAL LIST
OF THE
MEMBERS OF CONFERENCE.

NAME.	MISSION.	STATION.
Beebe, Rev. R. C., M.D.	A.M.E.M.	Nankin
Boone, H. W., M.D.	A.E.M.	Shanghai
Douthwaite, Rev. A. W., M.D., F.R.G.S. ...	C.I.M.	Chefoo
Fulton, Mary, M.D.	A.P.M.	Kwangsai
Gale, Mary, M.D.	W.U.M.	Shanghai
Grant, David, M.B., C.M.	E.P.M.	Chinchew
Haslep, Marie, M.D.	A.E.M.	Shanghai
Hodge, Rev. S. R., M.R.C.S., L.R.C.P., (Lon.)	Wes. M.	Hankow
Hopkins, Rev. M. S., M.D.	A.M.E.M.	Tsunhua
Hunter, Rev. S. A., M.A., M.D.	A.P.M.	Weihien
Jellison, E. R., M.D.	"	Nankin
Kerr, J. G., M.D.	A.P.M.	Canton
Kinnear, H. N., M.D.	A.B.C.F.M.	Foochow
Lyall, Alex., M.B., C.M.	E.P.M.	Swatow
Macklin, Rev. W. E., M.D.	F. Christ. M. Soc.	Nankin
Main, D. D., L.R.C.P. & S., (Edin.) ...	C.M.S.	Hangchow
Mathews, Percy, M.D., LL.D., F.R.G.S. ...	A.E.M.	Shanghai
Morley, Arthur, M.R.C.S., L.R.C.P. ...	Wes. M.	Hankow
Park, W. H., M.D.	A.M.E.M.	Soochow
Phillips, M. M., M.D.	"	"
Porter, Rev. H. D., M.D.	A.B.C.F.M.	Pangchuang
Reifsnnyder, E., M.D.	W.U.M.	Shanghai
Roberts, F. C., M.B., C.M.	L.M.S.	Tientsin
Stuart, Rev. G. A., M.D.	A.M.E.M.	Wuhu
Taylor, G. Y., M.D.	A.P.M.	Peking
Thomson, Rev. Jos. C., M.D.	"	Macao
Watson, J. R., M.B., M.R.C.S.	E.B.M.	Ching-chow-fu
Watson, A. R., L.K.Q.C.P. & S., (Ir.) ...	"	"
Whitney, H. T., M.D.	A.B.C.F.M.	Foochow
Woodhull, K. C., M.D.	"	"

HONORARY MEMBERS.

Blanc, Ed. H., M.D., (Paris)	Shanghai
Broomall, Anna, M.D.	Philadelphia
Jamieson, Alex., M.A., M.D., M.R.C.P. ...	Shanghai
Henderson, Edward, M.D., F.R.C.S., (Edin.)	"
Lalcaca, Cawas, M.D., L.R.C.P., L.M., (Lon.)	Shanghai
Lambuth, Rev. W. R., M.D.	Japan
Little, L. S., M.D., F.R.C.S., (Eng.), B.A. ...	Shanghai
Macleod Neil, M.D., etc., (Edin.)	"
Reid, Duncan, M.B., M.CH.	"
Thwing, Rev. Professor, M.D. PH.D. ...	New York

CORRESPONDING MEMBERS.

Fryer, Mr. John	Shanghai
Sugden, Miss	Hankow
Swinney, E. F., M.D.	Shanghai

The China Medical Missionary Journal.

VOL. IV.

SEPTEMBER 1890.

No. 3.

NOTICE.

The resignation of Dr. GILLISON leaves the post of Treasurer of the Medical Missionary Association vacant. As it is important that the Treasurer should reside at an accessible place, and one where there is a bank, Dr. PERCY MATHEWS, of Shanghai, has been nominated as a candidate for the vacant place. The Secretary, Dr. HODGE, has had to leave his home on account of illness, and the members are therefore requested to send in their votes for Dr. MATHEWS, or for any other member whom they may prefer to vote for, to Dr. BOONE at Shanghai.

H. W. BOONE, M.D.,

President,

Medical Missionary Association of China.

NOTICES OF BOOKS.

萬國藥方 — *Wen-koo yō fang.*

A MANUAL OF THERAPEUTICS AND PHARMACY, IN CHINESE, being in the main a translation of SQUIRE'S *Companion to the British Pharmacopæia*, with additions from the United States and Indian Pharmacopæia, and from Chinese sources, by the Rev. S. A. HUNTER, M.A., M.D., Missionary of the American Presbyterian Church in China. 1890.

Dr. HUNTER has forwarded us advance sheets of the above, together with some Notes for our information, and the subjoined Table of Contents. This work, being a translation alike from Foreign and Native sources, must prove a most valuable acquisition to the student of the Foreign Physician, for whom it is more especially prepared, a limited class admittedly, but one of ever increasing numbers. To the Native Doctor it may be useful, but without foreign training and explanation it cannot be in the same degree intelligible

and suitable. Nor could the intent be such, seeing to the insuperable difficulties presented in compiling a work to meet such different standards of thought and intelligence.

The style of printing and arrangement of the various headings leave nothing to be desired as regarding perspicuity. The Table of Contents itself illustrates the exhaustive treatment of the subject :—

English Preface.	Remarks on Dispensing.
Chinese Preface.	Table of Weights and Measures.
Nomenclature of Drugs.	Materia Medica.
Classification of Drugs.	General Index.
Pharmaceutical Preparations.	Index of Preparations.
Illustrations.	Index of Groups.
Pharmaceutical Utensils.	Chinese Index.
List of Surgical Instruments.	Tables of Specific Gravity.
Therapeutical Index.	Tables of Chemical Elements.

The Chinese and Foreign official name of each drug and preparation stand side by side in the text. The official drugs and preparations are indicated by their relative height upon the letter page.

Two editions, one on foreign and the other on Chinese paper, will be issued about October 1st.

That this work is a thorough and conscientious rendering of the text is evidenced from the following extract, courteously translated for us by the Rev. Mr. POTT, B.D., Head Master of St. John's College, Shanghai.

白樹膠又名亞拉伯膠.— *Acacie Gummi*.

Description :— This Medicine comes from Africa, Arabia and India, and is the gum of the *Acacia* tree congealed in small round globules, on the surface marked as cracked glass, of a greyish white color, and opaque to the light. Its Chinese name is derived from its whiteness.

Solubility :— Cold water 1 in 1, boiling water, readily soluble, but soon becomes sour and unfit for use. Insoluble in Alcohol, Ether and Acids.

Medicinal Properties } :—Emollient and Nutritive, often used as an adjunct with other Medicines.

Medicinal Use :—Good for dry coughs. Place a piece in the mouth and allow it to dissolve slowly.

Incompatibles :— Alcohol, Ether, Ammonia-water, Acetate of Lead, Borax and Acids.

P. M.

GRAY'S ANATOMY, DESCRIPTIVE AND SURGICAL.

Translated by D. W. OSGOOD, M.D., late Missionary of the American Board, with two hundred and sixty-five illustrations, sixty-five of which are now coloured. Revised and enlarged by HENRY T. WHITNEY, M.D., in three volumes. With a Vocabulary of Anatomical and Physiological Terms in English and Chinese by HENRY T. WHITNEY, M.D.

This is a new edition of the well-known translation of *Gray's Anatomy* by Dr. OSGOOD, with important additions by Dr. WHITNEY. The additions are mainly the sections on Embryology, and Medical and Surgical Landmarks and the enlarged Vocabulary. The text of the former edition has not been materially altered. This work has been steadily growing in popular favour since its first publication nine years ago, and, notwithstanding the larger work of Dr. DUDGEON, it is still generally used in the class-room. Every such translation is a valuable aid to the introduction of foreign medical science among the Chinese. Considering the short number of years that Dr. OSGOOD had been in China, and the character and permanency of his work, it is little short of marvellous how he succeeded in accomplishing it. In its present revised and attractive form it is a monument of the united labour of both translator and reviser. The Chinese and English Vocabulary, attached to the present edition, introduces important changes that require careful consideration. However, these changes are not introduced in the text of the work, and are put forth tentatively for the present. It is the most complete list of terms that has as yet been published.

S. A. H.

THE CHINESE SCIENTIFIC AND INDUSTRIAL MAGAZINE.

Vol. V. No. II.

JOHN FRYER, Editor.

The second number of this valuable magazine, lately resuscitated by the tireless energy of Mr. FRYER, is before us. The table of contents is varied and attractive, and the illustrations are quite up to the standard which has made this magazine so deservedly popular among the Chinese. A description of Scientific Apparatus, Illustrating Mechanics, occupies the first place, and is well adapted to further a knowledge of Physics—a branch of science singularly attractive to the Chinese mind. Lessons in Elementary Drawing treat of Perspective—a department in which Chinese art is peculiarly defective. The Sphygmograph, Modern Steam Engines and Boilers, Recent Calculating Instruments, Type-writers, Economie Electric Lights and Electro Motor for small Boats, are each treated of in short articles. Dr. EDKINS' explanation of the Evolution of the Chinese Language is rather beyond us. It evidently requires a sinologue to understand

a sinologue. The Yellow River, that fruitful theme, is treated of in an article of some length, from papers by G. J. MORRISON, Esq. Sanitary Science and Western Horticulture each claim attention. The latter subject has considerable space given it. From a medical point of view, the paper on Western Materia Medica, giving the botanical sources, physical qualities and medicinal uses of several drugs, is quite interesting, but it is rather diffuse, and makes one wish that instead of translations we could have original articles that are terse, and better adapted to the state of Chinese knowledge. A point or two in terminology claims attention. The use of *hsiang hsiang lei* (松香類) as a generic term for resins is incorrect, *hsiang lei* (香類) being a more proper term. The former term is only applicable to coniferous resins. Also such lengthy names as *Pei-li-la San-pi-lu-ssu* (沛離拉西散比路司) for *Cissampelos Pareira* are impracticable and confusing. While transliteration as a principle is generally conceded, it requires careful limitation. When phoneticized words reach as much as eight syllables, they are quite beyond the limits of endurance.

"Entomology," by Rev. J. WALLEY, the "Deaf and Dumb in China," by Rev. C. R. MILLS, D.D., "Mathematical Problems," by Rev. W. T. A. BARBER, M.A., and a Book Review make up this very valuable copy of the Journal.

The generous offer of the Editor to place a part of each number at the disposal of the Medical Missionary Association, for the advance of medical science among the Chinese, is a proposal that should be acted upon heartily and promptly.

S. A. H.

LIST OF MEDICAL MISSIONARIES TO THE CHINESE.

By JOS. C. THOMSON, M.D., Macao. Bound in cloth, price 25 cents.

Publishers: KELLY & WALSH, LIMITED, Shanghai.

This little work, upon which much time and labour must have been expended, will convey to the home lands an excellent impression of what we may call, the intelligible entity of the Medical Missionaries as an organized body in China. It will prove especially useful and convenient to the officials and members of the Medical Missionary Association, as it contains the name, qualification, arrival, station, and address, when necessary, of every member of the Association. A space is reserved for remarks, and the last few pages are taken up with a condensed report of interesting data. Altogether Dr. THOMSON is to be congratulated upon a practical and very serviceable directory of the "Medical Missionaries to the Chinese."

P. M.

THE ST. JOHN'S ECHO.

Taking into consideration that the examinations were evidently "all and absorbing," this July Number is most creditable. "Notes of the Season and College Items" are quaint and amusing, if not instructive, from an Eastern Natural History stand-point. Then in "Local News" the coming week of examinations is necessarily referred to. Examinations in "English Studies, Scriptures, Chinese Classics, Arithmetic, Astronomy, Physics, Chemistry, Geology, Natural History and Physiology." The last Meeting of the 'Useful Knowledge Society' is duly reported. Then come "School Sports" "Chinese Boy's School Life" "Chinese Festivals," a capital article on "Filial Piety" and lastly the "Lower Classes Column" fills in and goes to the make-up of a very enterprising and interesting little College paper, the price of which is only 50 cents a year.

P. M.

PRELIMINARY NOTES.

ANNUAL OF THE UNIVERSAL MEDICAL SCIENCES.

5 Vols. F. A. DAVIS. Publisher, New York and London.

The issue for the year 1890 is just to hand, too late for a careful review in this number of the Journal.

An examination shows that this number is well up to its predecessors in general excellence. The plates of microscopic objects and the cuts and diagrams explanatory of new surgical operations, add much to the convenience of the work as a book of reference. We hope to furnish a more extended notice for the December number of the Journal.

H. W. B.

LEPROSY IN HONGKONG.

By JAMES CANTLIE, M.A., M.B., F.R.C.S.

Publishers : KELLY & WALSH, LIMITED, Hongkong.

It is with regret that we cannot do other than acknowledge Mr. CANTLIE'S Monograph on Leprosy, necessarily from such an authority a valuable contribution to the medical literature of the East ; the work only arriving upon our going to press, precludes our now reviewing it.

REVIEW.

Medical Missionary Conference, Shanghai, May 1890.

It has been pertinently asked, What are the objects and aims of Conferences? To which we reply, inasmuch as the question referred to the Convention recently held, that a series of public meetings awakened enthusiasm and powerfully urged the claims of Medical Missionary enterprise. Again, that a separate series of meetings, quietly and accurately examined into important problems of Medical Missionary work, its being admittedly high time that to some of the questions thus raised, an honest and authoritative answer should be given; and, further, to adapt a quotation to our needs, "while the world seeks for a sign," the Medical Missionary "also desires light." It is, that we strive then, to turn to account the acquired experience of the past to the benefit of the future. But apart from all this, we urge the influence of so many earnest workers coming into personal contact, the one with the other, the communion of heart with heart, and the fellowship of kindred spirits, *will* tell on the life and character of each, and *will* increase both love and zeal. Thus explaining our views, we touch upon the more salient features of the work done by the Conference, the outcome of which cannot but teach lessons, their importance appreciated now, even as they will be for all time, and their practical application be surely helpful, assist the Medical Missionary, and those to whom he is sent.

The first paper read was an able dissertation on the Medical Missionary, both as a moral and ethical agency. The subject was exhaustively treated, and evidenced the author's ideal of a standard he himself has always endeavoured to set forth. "The Use of Native Drugs by Medical Missionaries" followed, a paper of rare and ingenious merit, being a most practical exemplification of the truism *Necessitas non habet leges*. In the discussion which followed the reading of Dr. DOUTHWAITE's paper, so much was its importance recognized that it was proposed that a Pharmaceutical Society should be formed, to undertake this especial department of work.

The paper "Preaching to Dispensary Patients" evolved in the discussion many strongly advocated methods of procedure. The question, however, to our mind, is one to be so naturally relegated to the sphere of individual capability, opportunity and circumstance, that it can be settled by no definite system of ruling, though the paper in point gave rise to interesting phases of the work, and afforded scope for many valuable suggestions. The President's Address, coming next, gave a broad view of Medical Missionary work, practically from its inception, in the year 1834, to the present day, outlining in bold relief that which had been done, and the mighty work which yet remains to be accomplished. It was instanced, how every decade produced its marked men; how PARKER, HOBSON, KERR, had lived and labored, how the latter, still laboring

on, had for upwards of 30 years been busily engaged, "more than 500,000 out-patients have passed under his care, more than 21,000 in-patients. He has performed the operations of Lithotomy and Lithotrity many hundred times. More than 27 volumes in the form of Chinese Medical text-books have been issued by Dr KERR, and in his long and faithful service he has trained upwards of 100 pupils." In translational work "the honored name of FRYER, in this as in other fields, stands among the foremost. Though not a medical man, he has translated some of the most valuable works we have, for the use of the student of medicine." An earnest appeal to the home lands, which we quote, closes this *résumé*—a history in brief of the Medical Missionary work in China:—"We need medical schools, better equipped in men and money and appliances for work. We would ask every medical author to give us one or two copies of the latest editions of his works, for our libraries of reference. Other doctors could give us donations from their libraries or bequeath them to us, when they shall no longer have need of them. The medical schools can help us by donations of Charts, Diagrams, and teaching apparatus. We should like to have apparatus for laboratory work, surgical instruments and appliances. The Medical Colleges might perhaps spare us some of these things without detriment to their own work. All such donations should be sent to the several missionary societies at home. The officers of our Association in China would see that these gifts were fairly and suitably apportioned between the various schools so as to best aid us in our work. There is only one thing that has given me the courage to claim this help, it is the knowledge which I have (as one of the fraternity) that the profession has only to know of such urgent need to respond to it generously." The paper "Calculus in the Bladder: Its Prevalence in China," was interesting alike in itself, and the discussion to which it gave rise. The different theories advanced to account for endemic conditions of Calculus, and its absence again, in other regions, under apparently similar conditions, were as ingenious as they were untenable. We can certainly advance that Calculus may be attributable either to the presence or absence of salt in the food, and negatively we can state it is well ascertained that the Negro of the South, whose principal meat is salt bacon, is remarkably exempt from this class of disease; whereas, on the other hand, the Indian, of a very large section of the North-West territories of Canada, to whom salt is a luxury, the disease is unknown. Again, we may say, we have data to warrant the inference that this affliction is hereditary. The bean-curd supposition, we hold to be as hypothetical as the rice and tea theory, both duly honored in their turn. There is, however, one generally admitted fact: Calculous diseases are much more common among the poor than the rich, a not unlikely condition of affairs when examined into, and one not very irrelevant to the point at issue, in our opinion. Not so readily accounted for, however, is the prevalence of Calculus among young children. Though Mechanical

grounds very feasilby explain the larger proportion in the Male, "climate" and "hard impure water" may be, and doubtless are factors to its being; yet regarding the latter we advance, that in America alone, as many Calculous cases are found in the freestone districts as in the limestone regions. Writing at sea, and quoting from memory, we are, however, quite prepared to admit the broad and generous conclusions the author arrives at, in summing up to the effect, that stone in the bladder is attributable to a certain desired, or possibly undesired, and unascertained proportion of the several causes to which allusion has been made. The two papers "Training Medical Students and their Prospects of Success" enter exhaustively into many phases of the subject: the Length of Course and of Study, the Partial Course, Medium of Instruction, Co-operation in Teaching, Shall only Christian Students be Taught? Difficulties and Discouragements, Employment of Native Medical Assistants, and Prospects of Success. Then, in order of Conference Programme, an eloquent letter from Dr. PECK tells us of his travels, and his experiences of Medical Missionary work throughout that great continent of India. Following on, "Itinerant Medical Work" is suggestively valuable. The "methods of work" clearly and explicitly defined, and the ensuing discussion of a most interesting nature. One consideration, and one too so seldom advanced in this respect, even by the most earnest Polemic, *Personal Equation* being emphasized and very practically illustrated.

The paper on Medical Nomenclature laid down the general principles upon which, in the opinion of the author, a uniform terminology of drugs and diseases should be based. While favouring the transliteration of names of vegetable drugs from Foreign sources, the necessity of introducing commercial names for those of mineral origin, instead of the chemical names now in use, was specially insisted upon. The importance of being familiar with native names of disease was also urged. It is certainly true "That unless we know something of native terminology we must always appear to a disadvantage when called upon to treat the educated classes of China." The paper as a whole was a strong plea for a uniform Chinese terminology in all the departments of medical science, which was shown to be entirely practicable. The discussion following, and the subsequent appointment of a committee of seven to carry out this work, was an indication of the purpose of the Conference to effect this desirable end.

On the discussion arising from the reading of Dr. Lyall's paper—"On Two Physicians Working Together in each Large Centre," the advantage of such co-operation was warily emphasized, more especially in the opening up of new stations. The need for mutual help and consultation was earnestly advocated, but the apparent anomaly of asking for a colleague when there were so many places lacking even a Doctor, was equally recognized, and yet, as it was pathetically pointed out, without such colleague it was impossible, especially in Hospital Practice, to take sufficient rest.

The discussion upon the paper "Hip-Joint Disease" resolved itself into a consensus of opinion regarding its hopelessness of treatment in China, either because the patient came to the hospital at too advanced a stage of the disease, or would not stay long enough for treatment when he did come. The Polyclinic splint was referred to, and free aspiration of joint when necessary with injections of Iodine and Glycerine. "The Fevers of China" were as thoroughly treated of as they could be under the circumstances, "Pernicious Malarial Fever;" Malarial Ascites cases generally doing well after tapping; Scarlet fever was "now recognised;" "Typhus was rare;" Typhoid, Diphtheria, Whooping Cough, were all touched upon. Regarding "True Asiatic Cholera," Dr. LALCACA was of opinion that the type met with in China "was mild compared to that prevalent in India." Picrate of Ammonia was recommended as giving satisfactory results in Intermittent Fever, but of no use in Remittent. "Fluoride of Ammonium" had been also used with good results in India.

The next business in order before the Conference was the appointing, by the President, of two important Committees, the one on Nomenclature, the other to collect information on "Chinese Materia Medica," the result of the investigations to be published in the Journal.

Some wise rules and methods of procedure, providing for the future elections of members to the Association, were made and adopted. Then it was strongly urged and carried that representations, to the "Home Boards" should be made requiring successful re-vaccination, as a necessary condition of appointment to Mission Work in China, this measure being based on the simple fact that during the meeting of the Conference five cases of small-pox had occurred, three of which had culminated in death.

The matter of classifying diseases in Hospital Reports was then brought forward, and it was determined, in order to have a uniform system, to adopt the classification issued by the Royal College of Physicians and Surgeons of England. Dr. KERR and Professor THWING, having inaugurated a scheme for the establishment of an Asylum for the Insane in Canton, the meeting wished them every success in the accomplishment of this humane and much-needed object, and recommended that efforts be made to establish similar Asylums in other parts of the Empire.

The several official elections were then duly made, Dr. LYALL being unanimously chosen President, and Dr. HODGE, Secretary. A large number were also added to the membership of the Association.

An important matter, which engaged the earnest attention of the members, was the "widespread and unrestricted" sale of Anti-Opium Pills, and Morphine, the result of the discussions being the submittal of a report to the General Conference, in the which, they were respectfully recommended to pass a resolution requesting all Missionaries to discourage and, if possible, prevent the

indiscriminate sale of Anti-Opium Pills. Amongst other matters suggested, and with every appearance of having some practical outcome, was the establishing of a Medical Museum at S. Luke's Hospital, Shanghai.

And, finally, in thus briefly reviewing the work of the Conference, we are assured, we can fairly sum up by congratulating the members upon the work, well done, and trust it will prove in the near future quite possible to have a thoroughly recognized system of meetings at shorter periods, and somewhat on the same lines as the Medical Conference of 1890.

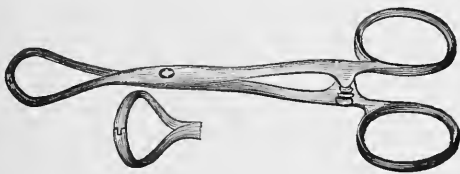
NEW INSTRUMENT.

A NEW CLAMP-FORCEPS, FOR SECURING AND LIGATING DEEP-SEATED ARTERIES.

By H. W. BOONE, M.D.,

Surgeon to St. Luke's Hospital, Shanghai, China.

The instrument here figured is intended for use in cases where the vessel is so deeply situated that it is impossible to tie it over the points of the ordinary forei-pressure forceps. The teeth of the instrument are rounded and they interlock so as to afford a firm grip, while they cannot tear the tissues. This is a great improvement on the teeth of the forceps in general use. It makes them excellent torsion forceps. The round head of the instrument makes it impossible to have any trouble in tying the ligature, as the thread slips over



the end of the foreeps and settles into its proper place as soon as traction is made on the ends of the ligature. I have used the instrument for several years in both hospital and private practice. It has also had an extensive trial at the hands of other surgeons, and it has never failed to give entire satisfaction; thus effecting a saving of time and trouble in what has often been a most troublesome difficulty. Its form, with the French joint, makes it an easy matter to clean and keep it aseptic.

MUSEUM
OF THE
MEDICAL MISSIONARY ASSOCIATION OF CHINA,
St. Luke's Hospital. Shanghai.

The following Contributions are gratefully acknowledged:—

A Jar, containing specimen in spirit.

From The Rev. S. R. HODGE, M.R.C.S., L.R.C.P., (*Lou.*)

FOR THE LIBRARY.

Translation of *Gray's Anatomy*.

From the Author, Dr. H. T. WHITNEY.

Complete set of copies of the *China Medical Missionary Journal*.

Through the Editor of the same.

PERCY MATHEWS, M.D.,
Curator.

ASSOCIATION BUSINESS MEETINGS.

A Business Meeting of the Medical Missionary Association of China, preliminary to the Conference, was held at S. Luke's Hospital on the afternoon of the 6th May 1890.

Dr. KERR, in the unavoidable and regrettable absence of Dr. BOONE, the President of the Association, in the Chair.

The Meeting, having been called to order and the roll called, was opened with prayer. A general discussion then ensued regarding the financial condition of the Journal and the advisability of having one general banking account. Whereupon it was moved by the Chairman :—

"That a Committee of three be appointed to take into consideration the financial position of the Association generally, the two Censors present, viz., Drs. Beebe and Roberts, and the Secretary, to constitute such Committee and report."

Carried *nem. con.*

The following gentlemen were proposed, seconded and duly elected to the Honorary Membership of the Association :—The Rev. Professor E. P. THWING, M.D., of Brooklyn, New York, and Dr. W. R. LAMBETH, of Japan.

A lengthened discussion then took place regarding the widespread and unrestricted sale of Anti-Opium Pills and Morphine, in the which all the members present took part. The matter was brought forward by Dr. Lyall, at the special instance of the Amoy Presbytery. He drew attention to the quantities of Morphine that were indiscriminately sold by the large foreign firms, who had their agents all over the place, to the fact that the Chinese were getting to know that these pills contained opium, and deliberately taking up the practice. He told how the effect upon the Chinese Church in Amoy, owing to the monetary inducements this employment gave, had been so disastrous, that the Church had felt obliged to take the matter up, and discipline those who transgressed in this way. He expressed a hope that all the Missionary Churches would follow on the same lines.

Dr. BEEBE followed corroborating the evil effect of the practice, and testifying to the spiritual deterioration it brought about.

Dr. HODGE, whilst fully admitting all that had been said, pointed out that the matter required careful handling ; that we could not in justice discipline Chinese members, unless we meted out the same punishment to foreign pastors who followed the same practice.

Dr. WHITNEY said, the Chinese Authorities were getting to know that large quantities of Morphine were being imported into the country under the name of medicine. He pointed out that the cheapness of the article placed it within the reach of all, and by so doing increased the danger. Enquiries were made as to where this opium came from, and the answer given from the 耶穌教,* the fear was that if we did not do our utmost to check this evil, some day it could recoil upon ourselves in persecution and possibly worse.

Dr. WATSON felt sure that nine-tenths of the lay Conference were with us, that it was mere ignorance on their part that led to their acting so, and that they simply needed to have the matter placed clearly before them.

* *Ye-su Kiau*, i.e., lit. "Missionaries."

Dr. ROBERTS considered that if a scientific opinion was given in reference to the evil here discussed, it would have considerable effect.

Dr. STUART, while admitting that the subject required delicate management, urged that if it was brought forward at all, it must be with no uncertain sound.

Dr. DOUTHWAITE moved and Dr. MATHEWS seconded :—

“That a Committee be appointed to draw up a resolution, to be presented to the General Conference, on the subject of the sale of Anti-Opium Pills.”

Carried *nem. con.*

Messrs. Doctors KERR, DOUTHWAITE, LYALL and HODGE were elected to act upon said Committee.

Necessary arrangements regarding the next meeting being made, the Society then adjourned.

10th May 1890.

Dr. BOONE, the President of the Association, in the Chair.

After the reading of the minutes, the following elections to the Membership of the Association were then made :—

Dr. H. N. KINNEAR,	Foochow.
„ J. J. GREGORY,	„
„ G. P. SMITH,	Tientsin.
„ JAS. HOWIE,	Chang-pu, Amoy.
„ C. J. DAVENPORT,	F.R.C.S.E., Ch'ung-king.
„ E. C. MACKLE,	Young Kong.
„ E. R. JELLISON,	Nanking.
„ W. C. NOBLE,	Pao Ting Su.
„ E. R. WAGNER,	Shantung.
„ J. S. GRANT,	Ningpo.
„ MARIAN SINCLAIR,	Peking.

To the Honorary Membership :—

Dr. T. B. ADAM and Dr. T. RENNIE, of Foochow.

To the Corresponding Membership of the same :—

The Rev. JAMES GILMOUR, M.A., of Mongolia, and the Rev. C. C. BALDWIN, D.D., of Foochow.

The Committee appointed to take into consideration the financial condition of the Association then submitted their Report to the Meeting, which was read by the Secretary, adopted by the Meeting, and the Committee duly discharged. (*The report in question was published in the June issue of the Medical Missionary Journal, page 85.*)

The Committee appointed to draw up a resolution, to be presented to the General Conference, on the subject of Anti-Opium Pills, handed in the following report.

“I.—Inasmuch as large quantities of Morphia are being introduced into China under the guise of foreign Medicine, by various persons, and as Morphia eating is becoming

prevalent in many parts of the country, through the sale of so-called Anti-Opium remedies, the China Medical Missionary Association respectfully requests this Conference to take this subject into consideration, in order to see if any means can be devised to prevent the rise and spread of a new evil, viz., Morphia eating.

"11.—The Medical Missionary Association respectfully submits a recommendation to this Conference, that it pass a resolution requesting all Missionaries to discourage and, if possible, prevent the indiscriminate sale of Anti-Opium Pills, containing Morphia or any other preparation of Opium, by native Christians or by Missionaries, as it is believed that the indiscriminate sale of these pills, though originating in good intent, is developing a tendency worse, if possible, than the one intended to cure."

A lengthened discussion then ensued, bearing more particularly upon what form and in what manner the presentation should be made. Drs. TAYLOR and WHITNEY remarking, that the resolution should go in as the voice of the Medical Missionary Association, Drs. KERR, DOUTHWAITE and the majority of the meeting were opposed to any alteration in the drawing-up of the Report, and strongly advocated its presentation.

The PRESIDENT then vacated the Chair to Dr. KERR, and said, that as a body of experts, it was only fitting and right a definite resolution should come from them, seeing that it was with an unquestioned propriety, they could formulate one setting forth for themselves, in their own language, and with no uncertain sound, their knowledge of the evil in all its aspects, and their determination to use that knowledge and do all that in them lay to combat that evil.

Dr. HODGE supported Dr. Boone in these views.

The report of the Committee was then adopted.

The following amendment to a motion introduced by Dr. Douthwaite was then passed :—

"That Drs. Boone, Lyall and Kerr present the matter before the Conference."

It was then moved and seconded :—

"That a Committee be formed to take into consideration the matter of the Journal and Dues. And that Drs. Kerr, Lyall, Boone and Hodge constitute such Committee."

Carried *nem. con.*

Proposed by Dr. MATHEWS, seconded by Dr. HODGE :—

"That the monies of the Medical Missionary Association of China, now standing in two and practically three separate accounts, be combined in one general fund, and placed to the deposit account of the Association in the Hongkong and Shanghai Bank Savings Bank as heretofore."

Carried *nem. con.*

Dr. HODGE gave Notice of proposed amendment to Rule III of the Constitution :—

"That the name of every lady and gentleman proposed for the Membership of this Society, shall be published in the Journal, together with the names of the Proposer and Seconder, and the Society to which he or she belongs, and the voting on such nomination be taken by voting papers inserted in that No. of the Journal. This rule shall apply to Honorary and Corresponding Members also,"

Dr. KERR gave Notice of Motion for the next meeting :—

“ That a Committee of three be appointed to take into consideration the relations of non-qualified Missionaries who practise Medicine, also the recognition of Native Students who have studied Medicine, and proved themselves efficient as Assistants in our Hospitals, and report.”

Adjournment.

16th May 1890.

Dr. BOONE, the President, in the Chair.

The meeting, having been called to order, was opened with prayer.

The minutes of the last meeting were read and affirmed. The following elections to the Honorary Membership of the Association were then made :—

Dr. J. MACGOWAN, of Wenchow.

„ DALY, of Ningpo.

„ EDWARD HENDERSON, of Shanghai.

„ BLANC, „

Mr. ARTHUR ALDRIDGE, I.M. Customs, Ichang.

Dr. SLOAN, of Shanghai.

„ LITTLE „

„ BURGE „

„ THOMSON, of Hankow.

„ FRASER, of Tientsin.

„ HENRY LAYNG, of Swatow.

„ IRWIN, of Tientsin.

„ ZEDELIOUS, of Shanghai.

„ ANNA BROOMALL, Philadelphia, U.S.A.

To the Corresponding Membership of the same ;—

Dr. FABER (Dr. Theol.), of Shanghai.

The Committee on Journal and Association Dues then submitted the following Report :—

“ (1). That there should be one Editor only of the Journal, with a staff of Collaborators, who will consent to write an article, when called upon, at two months' notice.

“ (2). That the Annual Dues of \$2.00 shall remain as fixed by the Constitution.

“ (3). That the Annual Subscription to the Journal be \$2.00, in addition to the sum paid for Association Dues.

“ (4). That in every number of the Journal there be a column for correspondence and information as to direct evangelistic work done, in connection with the various Mission Hospitals.

“ (5). That there be a column for short notes on interesting cases, etc.; this section to be entitled “ Mirror of Hospital Practice.”

“ (6). That photographs of cases may be published in the Journal, at the discretion of the Editor.

"(7). That there be a collective investigation on certain diseases, as "The Fevers of China," "Hereditary Syphilis," "Diseases of the Lymphatic System," especially "Elephantiasis," "Leprosy," "Beri-Beri," "Bronchial Hemorrhage," the period of investigation to extend over two years.

"(8). How best to follow up and care for Hospital Inquirers.

"(9). That if possible a Medical Museum be started in Shanghai, and that a sum not exceeding \$50.00 per annum be allowed the Curator for expenses.

"(10). That the Vice-Presidents and others, be urgently requested to form local Associations at their respective centres."

(Signed) H. W. BOONE, *Chairman*.
J. G. KERR.
S. R. HODGE.
A. LYALL, *Secretary*.

In the discussion which ensued regarding the several paragraphs of the resolution Doctors KERR, WHITNEY, LYALL, DOUTHWAITE, JOS. C. THOMSON, BOONE, HODGE, MACKLIN and LAMBUTH volunteered to act as Collaborators referred to in para. 1.

It was then moved and seconded :—

"That a Committee be appointed to conduct the work of collective investigation referred to in para. 7."

Whereupon the CHAIRMAN appointed the following :—

Dr. JOS. C. THOMSON, of Macao	Dr. GRANT, of Amoy.
„ LYALL, „ Swatow	„ DOUTHWAITE, of Shantung.
„ HODGE, „ Hankow	„ ROBERTS, of Tientsin.

With reference to para. 8. the CHAIRMAN stated that he was prepared to give a room, suitably fitted up with shelves, in S. Luke's Hospital, in the event of a Museum being established.

Dr. MATHEWS promised assistance.

These remarks were warmly applauded.

Dr. THOMSON suggested the forming of a Library, and placing therein amongst other works, reports of Hospitals, Societies, etc.

Dr. KINNEAR spoke of Photographs of interesting cases.

Dr. MATHEWS, Managing Editor of the *Medical Missionary Journal* then submitted his resignation to the Meeting.

Drs. LYALL and HODGE equally submitted their resignations as Editors of the *Journal*, It was proposed and seconded :—

"That the resignations of these gentlemen be accepted, and the hearty thanks of the Association be accorded them for their valuable services."

Carried unanimously.

Dr. DOUTHWAITE moved and Dr. WHITNEY seconded :—

"That a nominating Committee be appointed for the election of the officers of the Association, March 1891."

Carried.

The CHAIRMAN then appointed the following gentlemen to act upon the Committee :— Drs. PARK, HUNTER, MACKLIN, KERR and TAYLOR of Peking.

Dr. KERR's motion, notice of which was duly given at the last business meeting, was then brought forward, discussed and carried.

The CHAIRMAN appointed Drs. KERR, MORLEY and WHITNEY to act on desired Committee.

Dr. HODGE's motion, notice of which had been equally given, having reference to an amendment to Rule III. of the Constitution, was submitted to the meeting, and carried.

It was then proposed :—

“That the minutes of the business meetings, held previous to the Conference, be published in the Journal, together with the statement of accounts.”

Carried.

The CHAIRMAN then stated it was necessary to elect officers to the existing vacancies, whereupon it was proposed and seconded :—

“That Dr. Mathews should act as sole Editor until March 1891, *i.e.*, the neexpired term.

“And that Dr. Hodge should be Secretary for the same period.”

Carried *nem. con.*

Proposed by Dr. KERR seconded by Dr. WHITNEY :—

“I.—That as Mr. John Fryer had offered his Scientific and Industrial Magazine to the Medical Missionary Association as a medium for publishing articles on medical subjects, Resolved, that we accept Mr. Fryer's offer and express our thanks for the same.

“II.—That we request members of the Association to prepare articles in Chinese for Mr. Fryer's Journal.”

Carried unanimously.

Dr. WHITNEY remarked that this would for the present be a substitute for publishing ourselves.

Arrangements for reporting the General Conference were then made. The following gentlemen expressed their willingness to act as Secretaries :—Doctors HODGE, KINNEAR MATHEWS and G. Y. TAYLOR.

There being no further business the meeting adjourned.

H. W. BOONE, M.D.,
President.

PERCY MATHEWS, M.D.,
Secretary.



MEDICAL MISSIONARIES TO THE CHINESE.

As far as it is practicable, this list has been brought down to date. The author of the List, and the Editor of the Journal, will be glad to receive additions or corrections to the List.

NAME.	MISSION.	STATION.	ARRIVAL.	REMARKS.
Aitken, W. K., L.R.C.P. & S.E. ...	E. Meth.N.C.M.	Kaiping	1884	Retired 1889
Akers, Miss L. E., M.D. ...	A.M.E.M.	Tientsin	1882	See Perkins, Mrs.
Allen, H. N., M.D. ...	A.P.M.	Nankin	1883	To Corea 1884, pioneer
Anderson, Miss S. J., M.D. ...	"	Tsinanfu	1877	Retired 1878
Anderson, Peter, L.R.C.P. & S.ED. ...	E.P.M.	Taiwanfu*	1878	
Atterbury, B. C., M.D. ...	A.P.M.	Peking	1879	
Atwood, Rev. I. J. ...	A.B.C.F.M.	P'ang-chaung†	1889	
Ball, Rev. Dyer, M.D. ...	"	Canton	1838	Died Canton 1866
Barchet, Rev. S. P., M.D. ...	A.B.M.	Ningpo	1868	Absent
Beebe, Rev. R. C., M.D. ...	A.M.E.M.	Nankin	1884	
Bettelheim, Rev. B. J., M.D. ...	"	Loo-choo Ids.	1846	Retired 1852
Bliss, S. F., M.D. ...	A.P.M.	Tung-chow	1872	" 1873
Boughton, Miss E. F., M.D. ...	"	Weihien‡	1889	
Boone, Rev. W. J., M.D. ...	A.E.M.	Amoy, Shai.	1837	Died Shai. 1864
Boone, H. W., M.D. ...	"	Shanghai	1880	
Brown, Miss M., M.D. ...	A.P.M.	Weihien‡	1889	
Brown, J., M.D. ...	E.B.M.	Chefoo	1871	Retired
Bunn, Rev. A. C., M.D. ...	A.E.M.	Wuchang	1874	"
Burdick, S. M., M.D. ...	S.D.B.	"	1889	
Burton, G. W., M.D. ...	A.B.M.	Shanghai	1852	" 1861
Bushnell, Miss K. C., M.D. ...	A.M.E.M.	Kiukiang	1879	"
Cameron, Rev. Jas., M.D. ...	C.I.M.	Ch'ungking§	1875	M.D. 1885
Carlton, Miss M. E., M.D. ...	A.M.E.M.	Foochow	1887	
Carmichael, J. R., M.R.C.S. ...	L.M.S.	Canton	1862	Retired 1863
Carnegie, Jno., M.D. ...	E.P.M.	Amoy	1859	" 1865
Carrow, J. F., M.D. ...	A.P.M.	Canton	1876	" 1879
Christie, D., L.R.C.P. & S.ED. ...	U.P.M. Scot.	Mookden	1882	Absent
Colborne, Wm. W., M.D. LOND. ...	C.M.S.	Canton	1890	
Collins, Rev. W. H., M.R.C.S. ...	"	S'hai., Peking	1858	Retired 1880
Coltman, R. J., jr., M.D. ...	A.P.M.	Tsinanfu†	1885	
Combs, Miss L. S., M.D. ...	A.M.E.M.	Peking, Kiukiang	1873	" 1877
Corey, Miss C. A., M.D. ...	"	Foochow	1884	" 1888
Cousland, P. B., M.B., C.M. ...	E.P.M.	Swatow	1883	
Cox, G. A., L.R.C.P. & S. ...	C.I.M.	Gank'ing||	1888	
Crews, Rev. G. B., M.D. ...	A.M.E.M.	Ch'ungking,§ Peking	1883	Absent
Cumming, W. H., M.D. ...	Uncontd.	Amoy	1842	Retired 1847
Curtiss, Rev. W. H., M.D. ...	A.M.E.M.	Peking	1887	

* Formosa † via Tientsin ‡ via Chefoo § via Hankow || c/o C.I.M. Shanghai

NAME.	MISSION.	STATION.	ARRIVAL.	REMARKS.
Daniells, Miss C. H., M.D. ...	A.B.M.	Swatow	1878	Retired 1884
Daveuport, C. J., F.R.C.S. ...	L.M.S.	Ch'uangking*	1890	
Davenport, Rev. S. A., M.D. ...	A.P.M.	Ningpo	1873	" 1873
Deas, W. A., M.D. ...	A.E.M.	Wuchang	1881	Absent
Denny, L. D., M.D. ...	A.M.E.M.	Tsun-hua	1884	Retired 1885
Devan, Rev. T. T., M.D. ...	A.B.M.	H.K., Canton	1844	" 1846
Dickson, M., M.D. ...	E.P.M.	Taiwaifu	1871	"
Dickson, Miss Madge, M.D. ...	A.P.M.	Weihien†	1889	
Dickson, Margaret, M.D. ...	"	"	1889	
Diver, W. B., M.D. ...	A.B.C.F.M.	Macao	1839	" Dec. 1840
Douthwaite, Rev. A.W., M.D., F.R.G.S.	C.I.M.	Chefoo	1874	M.D. 1885
Dudgeon, Jno., M.D. ...	L.M.S.	Peking	1863	Retired
Dukes, O. A., M.D. ...	A.M.E.M.	Nansiang	1881	To Japan July '86
Edwards, E. H., M.B., C.M. ...	C.I.M.	Taiyuenfu	1882	Absent
Fahmy, A., M.B., C.M. ...	L.M.S.	Chiangchiu‡	1887	
Farries, W. R., M.D. ...	A.P.M.	Weihien†	1889	
Fish, M. W., M.D. ...	A.E.M.	Shanghai	1855	Retired 1856
Fishburne, R. B., M.D. ...	A.P.M.	Hangchow	1881	"
Fraser, Rev. J. B., M.D. ...	Cau. P.M.	Tamsui	1874	"
Fulton, Miss M. H., M.D. ...	A.P.M.	Canton	1884	
Gale, Miss M., M.D. ...	A.W.U.M.	Shanghai	1887	
Galt, J., M.D. ...	C.M.S.	Hangchow	1871	"
Gauld, Wm., M.D. ...	E.P.M.	Swatow	1863	" 1880
Gentle, Jas., M.D. ...	L.M.S.	Chinkiang,	1863	" in 1866
		Shanghai		
Gilechrist, Miss E., M.D. ...	A.M.E.M.	Kiukiang	1881	"
Gillison, Thos. M.B., C.M. ...	L.M.S.	Hankow	1882	
Gloss, Miss A. D., M.D. ...	A.M.E.M.	Tientsin	1885	
Göcking, Rev. H., M.D. ...	Berlin M.	Kwangtung	1855	" in 1864
Goldsbury, J., M.D. ...	A.B.C.F.M.	Taiкус	1889	
Grant, David, M.B., C.M. ...	E.P.M.	Chincheu‡	1880	
Grant, J. S., M.D. ...	A.B.M.	Ningpo	1889	
Graves, Rev. R. H., M.D., D.D. ...	"	Canton	1856	
Gregory, J. J., M.D. ...	A.M.E.M.	Foochow	1889	
Greig, J. A., M.B. ...	I.P.M.	Manchuria||	1889	
Griffith, E. M., M.D. ...	A.E.M.	Shanghai	1885	" 1887
Gulick, Rev. L. H., M.D., D.D. ...	A.B.S.	"	1876	Absent
Happer, Rev. A. P., M.D., D.D. ...	A.P.M.	Canton	1844	
Harvey, T. P., M.R.C.S., L.R.C.P. ...	C.I.M.	Bhamo	1869	Died
Harley, E.P., L.R.C.P., LOND., M.R.C.S.	Wes. M.	Hankow	1870	Retired 1876
Haslep, Miss Marie, M.D. ...	A.E.M.	Wuchang	1888	
Henderson, Jas., F.R.C.S.ED. ...	L.M.S.	Shanghai	1860	
Henderson, W. A., L.R.C.P. & S.E. ...	U.P.M. Scot.	Chefoo	1871	
Hepburn, J. C., M.D. ...	A.P.M.	Amoy	1841	In Japan
Hickin, Herbert, M.B., C.M. ...	C.M.S.	Hangchow	1887	
Hirschberg, H. J., M.R.C.S. ...	L.M.S.	H.K., Amoy	1847	Retired 1858
Hoag, Miss L. H., M.D. ...	A.M.E.M.	Chinkiang	1883	
Hobson, Benj., M.R.C.S. ...	L.M.S.	Macao,	1839	" 1859
		Canton, S'hai.		
Hodge, Rev. S. R., M.R.C.S., L.R.C.P.	Wes. M.	Hankow	1887	
Holbrook, Miss M. A., M.D. ...	A.B.C.F.M.	Tungcho	1881	" 1887
Hope, Rev. M. B., M.D., D.D. ...	"	Singapore	1836	" in 1838
Hopkins, Rev. N. S., M.D. ...	A.M.E.M.	Tsunhua¶	1885	
Horder, E. G., L.R.C.P. & S.ED. ...	C.M.S.	Pakhoi	1883	

* via Hankow † via Chefoo ‡ via Amoy § via Tientsin || via Newchwang ¶ via Peking

NAME.	MISSION.	STATION.	ARRIVAL.	REMARKS.
Howard, Miss L. A., M.D. ...	A.M.E.M.	Peking, Tientsin	1877	See King, Mrs.
Howie, Jas., M.B., C.M. ...	E.P.M.	Changpu*	1888	
Hunter, J., M.D. ...	I.P.M.	Newchwang	1869	Died
Hunter, Rev. S. A. D., M.D. ...	A.P.M.	Tsi-ning†	1879	
Hyslop, Jas., M.B. ...	L.M.S.	Amoy	1848	Retired 1851
Ingram, J. H., M.D. ...	A.B.C.F.M.	Tungcho‡	1887	
Jellison, E. R., M.D. ...	A.M.E.M.	Nankin	1889	
James, Rev. J. S., M.D. ...	A.B.M.	Shanghai	1848	Drowned 1848
Johnson, C. F., M.D. ...	A.P.M.	I-chow-fu†	1889	
Jones, Miss, M.D. ...	M.E.	Foochow	1877	
Kelly, Rev. D. C., M.D. ...	A.M.E.M.	Shanghai	1854	Retired 1856
Kelsey, Miss A. D. H., M.D. ...	A.P.M.	Tungchowfu	†1878	Went to Japan
Kerr, J. G., M.D. ...	"	Canton	1854	
King, Mrs. L. A., M.D. ...	L.M.S.	Tientsin	1877	See Howard, Miss
King, Miss Y. May, M.D. ...	A. Ref. M.	Amoy	1888	To Japan in 1889
Kinnear, H. N., M.D. ...	A.B.C.F.M.	Foochow	1889	
Kühne, Jno., M.D. ...	Rhen. M.	Tungkun§	1889	
Lambuth, Rev. W. R., M.D. ...	A.M.E.M.	Soochow	1878	To Japan in 1886
Lang, J. C. R., L.R.C.P. & S.E.D. ...	E.P.M.	Chinchew*	1885	
Langley, A. P., M.R.C.S. ENG. ...	Wes. M.	Hankow	1876	Retired
Lerry, Edna G., M.D. ...	M.E.	Tsunhua		
Lockhart, Wm., F.R.C.S. ENG. ...	L.M.S.	Macao, H.K., S'hai., Peking	1838	" 1864
Lyall, Alex., M.B., C.M. ...	E.P.M.	Swatow	1879	
McCandliss, H. M., M.D. ...	A.P.M.	Kiungchow||	1885	
McCartee, D. B., M.D. ...	"	Ningpo	1844	To Japan
McClure, Wm., M.D. ...	Can. P.M.	Changtuhfu¶	1888	
McCown, Miss R., M.D. ...	A.B.M.	Shanghai	1885	Retired in 1886
McBride, F. E., M.D. ...	A.B.C.F.M.	Kalgan‡	1889	Died 1890
Macdonald, Rev. R. J. J., M.D., C.M. ...	Wes. M.	Shinkwan§	1884	
McDonald, G. B. D., M.B., C.M. ...	P.M. Scot.	Ichang	1887	Retired
McFarlane, E. P., L.R.C.P. & S.E.D. ...	"	Yangchow	1878	Died 1890
McFarlane, S. S., L.R.C.P. & S.E.D. ...	L.M.S.	Chichow¶	1887	
Macgowan, D. J., M.D. ...	A.B.M.	Ningpo	1843	Retired in 1859
Machle, E. C., M.D. ...	A.P.M.	Lien-chow	1889	
Mackenzie, J. K., M.R.C.S., L.R.C.P. ...	L.M.S.	Hankow, Tientsin	1875	Died April 1888
Macklin, Rev. W. E., M.D. ...	F.Christ.M.Soc.	Nankin	1886	
Macleish, Rev. A. L., M.D., C.M. ...	E.P.M.	Amoy	1881	Absent
McPhun, J. F., M.B., C.M. ...	"	Ungkangphu **	1883	
Main, D. D., L.R.C.P. & S.E.D. ...	C.M.S.	Hangchow	1882	"
Marston, Miss A., M.D. ...	S.P.G.	Peking	1889	
Mason, Miss L., M.D. ...	A.M.E.M.	Kiukiang	1874	Retired
Mason, L., M.D. ...	M.E.	Foochow	1874	
Mathews, Percy, M.D., F.R.G.S. ...	A.E.M.	Shanghai	1888	
Mathewson, J. M., M.D. ...	A.P.M.	Weihien	1884	" 1886
Mawbey, Rev. W. G., L.R.C.P. & S.E. ...	L.M.S.	Hankow	1879	Died Nov. 1886
Maxwell, Jas. L., M.D. ...	E.P.M.	Taiwanfu	1863	Retired 1885
Merritt, C. P. W., M.D. ...	A.B.C.F.M.	Pao-tingfu	1885	
Morley, Arthur, M.R.C.S., L.R.C.P. ...	Wes. M.	Hankow	1886	
Murdock, Miss V. C., M.D. ...	A.B.C.F.M.	Kalgan‡	1881	

* via Amoy † via Chefoo ‡ via Peking § via Canton || Hainan ¶ via Tientsin ** via Swatow

NAME.	MISSION.	STATION.	ARRIVAL.	REMARKS.
Neal, J. B., M.D.	A.P.M.	Tungchowfu	*1883	
Niles, Miss M. W., M.D.	"	Canton	1882	
Noble, W. C.	A.M.E.M.		1889	
Osborne, D. E., M.D.	A.B.C.F.M.	Jeho	1884	
Osgood, D. W., M.D.	"	Foochow	1870	Died 1880
Otte, J. A., M.D.	A. Ref. M.	Amoy	1888	
Palmer, Rev. W. S., L.R.C.S.I. ..	L.M.S.	"	1882	Retired 1886
Park, W. H., M.D.	A.M.E.M.	Soochow	1882	
Parker, Rev. P., M.D. (The Pioneer)	A.B.C.F.M.	Canton	1834	Died 1888
Parker, Wm., M.D., L.F.P.S.G. ...	C.E.S.	Ningpo	1854	" Ningpo 1863
Parker, Jno., M.D.	U.P.M. Scot.	"	1863	Retired 1867
Parry, H., M.R.C.S., L.R.C.P. ...	C.I.M.	Ch'entu†	1884	
Paton, B. L.	E.P.M.	Chin-chew‡	1890	
Patterson, W., M.D.	A.P.M.	Ningpo	1871	" 1871
Peck, A. P., M.D.	A.B.C.F.M.	Pangchuang	1880	Absent
Perkins, Mrs. L. E., M.D.	"	Lin-ching§	1882	See Akers, Miss
Philips, Miss M. M., M.D.	A.M.E.M.	Soochow	1884	
Porter, Rev. H. D., M.D.	A.B.C.F.M.	Pangchuang	||1872	
Pray, Miss S. M., M.D.	A.M.E.M.	Foochow	1886	Absent ?
Pritchard, E. T., M.B., C.M. ...	L.M.S.	Peking	1886	
Pruen, W. L., L.R.C.P. & S. ...	C.I.M.	Kwei-chao	1880	
Pruin, M.D.	C. E. Soc.	Penang	1887	Retired
Randle, Rev. H. A., M.D.	C.I.M.	Chefoo	1876	M.D. 1888
Reifsnnyder, Miss E., M.D.	A.W.U.M.	Shanghai	1883	
Riddel, Rev. Wm., M.B., C.M. ...	E.P.M.	Ungkangphu	†1881	Absent
Rigg, John, M.B., C.M.	C.M.S.	Fuhning,||	1888	
Roberts, F. C., M.B., C.M.	L.M.S.	Foochow		
Russell, Gavin, M.B., C.M.	E.P.M.	Tientsin	1887	
		Taiwanfu¶	1888	
Schofield, R.H.A., M.B.OXON., F.R.C.S.	C.I.M.	Taiyuenfu	1880	Died Aug. 1, 1883
Shearer, Geo., M.D.	L.M.S.	Hankow	1868	Retired 1870
Shrubshall, W. W., L.R.C.P. & S.E. ..	Eng. M.N.C.M.	Lao-ling||	1888	
Sinclair, Miss M. E., M.D.	A.P.M.	Peking	1888	
Smith, F. P., M.B., M.R.C.S. ...	Wes.M.	Hankow	1864	Died 1889
Smith, H. R., M.D.	A.P.M.	Weihien	1881	Retired 1883
Smith, G. P., M.D.	L.M.S.	Tientsin	1888	
Smith, Rev. J. F., M.D.	Can. P.M.	Hsuinhien||	1888	
Scott, Mrs. A. K., M.D.	A.R.M.	Swatow	1889	
Scott, Mrs., M.D.	"	"	1889	
Soltan, Henry, L.R.C.P. & S.E. ...	C.I.M.	Bhamo	1885	Absent
Sparr, Miss J. E., M.D.	A.M.E.M.	Foochow	1878	Retired
Speer, Rev. Wm., M.D.	A.P.M.	Canton	1846	" 1849
Stenhouse, D., L.R.C.P. & S.E.D. ...	Eng. M.N.C.M.	Wutingfu	1878	" 1885
Stewart, Jno., M.D.	S.P.G.	Peking	1863	" 1864
Stewart, J. C., M.D.	C.I.M.	Kweihwa-†	1886	
		ch'eng, Shansi		
Stuart, Rev. G. A., M.D.	A.M.E.M.	Wuhu	1886	
Stubbert, J. E., M.D.	A.P.M.	Nankin	1881	" 1884
Swan, J. M., M.D.	Wes. M.	Canton	1885	
Swinney, Miss E. F., M.D.	A.S.D.B.M.	Shanghai	1883	
Tarbell, W. E., M.D....	A.M.E.M.	Kinkiang	1875	"
Taylor, Rev. Chas., M.D.	"	Shanghai	1848	" 1853

* via Chefoo † c/o C.I.M. S'hai ‡ via Amoy § via Foochow || via Tientsin ¶ via Formosa

NAME.	MISSION.	STATION.	ARRIVAL.	REMARKS.
Taylor, Rev. J. H., M.T.C.S. ...	C.I.M.	Shanghai	1854	
Taylor, F. H., M.D. LOND., F.R.C.S.E..	"	Ganking*	1890	
Taylor, B. Von. S., M.B. ...	C.M.S.	Hokningfu†	1878	
Taylor, J. B., M.D. ...	A.M.E.M.	"	1882	Retired
Taylor, G. Y., M.D. ...	A.P.M.	Peking	1887	
Terry, Miss Edna C., M.D. ...	A.M.E.M.	Tsunhua‡	1887	
Thomson, A., M.B., C.M. ...	E.P.M.	Swatow	1869	Drowned April '72
Thomson, Rev. Jos. C., M.D. ...	A.P.M.	Macao	1881	
Thomson, Jno. C., M.B., C.M. ...	L.M.S.	Hongkong	1889	
Tracy, Stephen, M.D. ...	A.B.C.F.M.	Bangkok	1836	Retired 1839
Trask, Miss S., M.D. ...	A.M.E.M.	Foochow	1874	"
Treat, A. O., M.D. ...	A.B.C.F.M.	Kalgan	1867	"
Wagner, E. R., M.D....	"	Lin-ching§	1889	
Watson, J. R., M.B., M.R.C.S. ENG...	E.B.M.	Tsingchowfu ||	1885	
Watson, Mrs. A. R., L.K.Q.C.P. & S.IR.	"	" ||	1885	
Welton, Rev. Wm., M.R.C.S. ...	C.M.S.	Foochow	1850	Retired 1856
Wenyon, Rev. Chas., M.D. M.CH. ...	Wes. M.	Fatshan¶	1881	
Westwater, A. McD., L.R.C.P. & S.ED.	U.P.M. Scot.	Haichung**	1881	
Whitney, H. T., M.D. ...	A.B.C.F.M.	Foochow	1877	
Wiley, Rev. I. W., M.D. ...	A.M.E.M.	Foochow	1851	Retired in 1854
Wilson, Wm., M.B., C.M. ...	C.I.M.	Hanchung*	1882	
Wong Fun, M.D., L.R.C.S. ED. ...	L.M.S.	H.K., Canton,	1857	" 1860
Wood, Miss Mary ...	"	"	"	
Woodhull, Miss K. C., M.D. ...	A.B.C.F.M.	Foochow	1884	
Woods, Edgar, jr., M.D. ...	A.P.M.	Tsingkiangpu ††	1887	
Young, Jas. H., M.D. ...	E.P.M.	Amoy	1850	" in 1854
Young, Thos., M.B., C.M.ED. ...	U.P.M. Scot.	Manchuria**	1889	

* c/o C.I.M. S'hai † via Foochow ‡ via Peking § via Tientsin || via Chefoo ¶ via Canton

** via Newchwang

†† via S'hai

JOS. C. THOMSON.

CORRESPONDENCE.

*To the Editor**of the Medical Missionary Journal.**May, 1890.*

SIR,

It has been suggested to me that the observations of an outsider regarding Missionary Conferences, may not be uninteresting to the readers of your Journal. If such be the case, I will premise by incidentally remarking that the Shanghai of the present is a revelation to those who knew the Shanghai of a score of years ago; the Shanghai of the past two weeks has been a revelation to many of its ordinary inhabitants. The houses are unchanged, the streets are as broad and as gay as usual, but the whole place has been permeated by a subtle influence, unmistakable and yet wholly intangible. Some five hundred strangers, future citizens of "a city which hath foundations, whose builder and maker is God" have made this fair city in the Far East their rendezvous, their business being the business of the Great King. From the North, and from the South, from the West, and even from beyond the Eastern Sea they have come to confer together concerning the things of the kingdom. Every Protestant creed and sect has been represented, and well-nigh every fashion of hat and bonnet, dress and mantle worn during the last half-century. But clashing creeds and colours, faiths and fashions, have faded into nothingness in the presence of the one Spirit which has animated this peaceful army of invaders. English and American, Scotch and Irish, German and Chinese, have lingered in each other's company and clasped hands in truest brotherhood. In the streets, on the Bund, in shops, in jin-rick-shas they have been

met, and almost invariably they have been recognizable, not so much by the form of their garments, though that has ofttimes been quaint enough, as by the expression of their faces, the King's seal upon the brows of all, old and young, sick and well alike.

They are very human, too, these missionaries of both sexes and many lands; their calling has not made them other than "of like passions with ourselves." In the midst of their earnest, painstaking labours there have not been wanting touches of fun and frolic, not unbecoming the followers of "the Lord of Laughter" who "delights in the gladness of a merry heart." One of the brethren, whose jovial face and twinkling eyes are the embodiment of "Mr. Pickwick," was wending his way towards the theatre where the opening service of the Conference was to be held, when, uncertain of his whereabouts, he ventured to enquire, in a voice as "gentle as a sucking dove" of a resident who was passing in a jin-ricksha, the way to the theatre. The resident most courteously alighted on the pavement, and, despite remonstrances, proceeded to accompany the brother to the door of the theatre. After remarks about the weather, the following short conversation ensued:—"Have you a *troupe* coming?" "Oh yes," replied the missionary, with keen appreciation of the mistake. "There is a goodly number of us, four or five hundred, I believe. Are you coming to hear the sermon this morning?" The courteous resident backed a step, pointed out the theatre, and, with a hasty good-morning, retreated.

More than once the sweet old story of human love has been told again in willing ears, and more than once have the Cathedral doors been flung open to admit a bridal

party. More than once, too, has Death entered the circle and called one and another to the Conference above, a veritable home-call, so it has looked to us, half-envied by those left behind.

Neither are these missionary friends of ours, destitute of peculiarities, and those sometimes of a marked type, but while the motto "Love suffereth long and is kind" is the confessed law of life to many, nay most, the friction arising amongst such a number from these peculiarities is, and is likely to continue, noticeably small. One instance may suffice: A missionary of many years' standing, who has had a goodly share in bringing this Conference together, has always something to say upon every subject which is "very important." He has a royal disregard for parliamentary usages, chairman's decisions, and even for the well-nigh omnipotent *vox populi*, and as his "very important" remarks are frequently in direct opposition, not only to all these, but to the opinions of most missionaries of long experience, it is desirable on all accounts that they should be cut short. And yet I myself have heard a missionary brother against whose methods many of these remarks were directed, say afterwards in private, with a rueful face, "It was necessary, I suppose, but I don't like an old man to be 'put down,' it does not seem just becoming of us younger men."

Another peculiarity, which especially strikes me and arouses my curiosity, is this: Why do Missionaries in Shanghai adopt native dress? I quite understand why it is done in the interior of the country, where foreign costume is a rarity and may be a hindrance, but why, oh why is it done in the ports, where it only retards the good work? For ladies especially it seems to me most incomprehensible, and, as a Christian in full sympathy with the principle of missions, I should be glad of definite information and enlightenment. These good people do not belong to any one mission, well-nigh every society has some of these

devotees of incongruity. You see refined faces of many a Western type walking around in raiment which is neither more nor less than a parody upon Chinese modes, and which is alas! in many cases open to to the cruellest misinterpretations on the part of—not the foreign community—but the Chinese ladies and *respectable* women whom these dear sisters would fain lead to Christ.

But enough of this, my space is nearly used, and I cannot conclude without touching on what had almost proved a fatal catastrophe. These dear people, with what looks very like a touch of human vanity, though it may have been another and a worthier motive, or even a mixture of many, resolved to be "put in a picture," in other words to be photographed in one large group. For this purpose, to the number of some four hundred, they assembled at the place of execution, and there were requested to mount a scaffolding some twenty feet high in all, consisting of tiers of planks tied with bamboo splits to bamboo poles of some two or three inches in diameter, which poles were resting on the ground without stay or support of any kind, so far as I can gather, except that the front poles were stuck some two or three inches into the soft ground!! And here the faith of these people in the veracity of the human race is astoundingly proved. They believed, on the assurance of a Frenchman, who knew very little English and less Chinese, that it was quite safe. The Chinese carpenter had said so! And they prepared to mount the frail structure. One encouraged the other, and the strong helped the weak, until say some thirty tons of precious humanity had climbed the dangerous height. Then "without either sign or sound of a shock," the whole thing creaked, curved, and collapsed!!! Two hundred women, and never a scream! Two hundred men, and never an angry word. Utter and terrifying silence. Was everybody killed? The photographer wrung his hands and tore his hair. On-lookers gazed in horror!—but soon the uninjured,

with infinite caution, so as not to hurt those under them, extricated themselves, and those on whom the weight of the Confidential body had fallen were dragged out from under the ruins and tenderly carried into a house where medical aid was quickly given. And then, from the throats of the hundreds outside, arose a song of praise to God for his infinite mercy.

No one was killed, and but very few injured! One may well ask, "Are the days of miracles ended?" for it was nothing but a miracle, that such an accident had such an ending. Nothing but a miracle that hardly anyone was really frightened, and that the love of God was so firmly rooted in the hearts of his servants that in that hour of supreme peril everybody thought not of himself but of others.

* * * * *

God speed his messengers on their splendid errand, and may he so continue to them the gift of his in-dwelling spirit, that they may be as lights shining amid the gross darkness of this heathen land and may worthily win the guerdon of those who turn many to righteousness.

I am, Sir,

Faithfully Yours,

J. T.

To the Editor

China Medical Missionary Journal.

DEAR SIR,

I greatly regret I was not able to be present at the Conference. Dr. Hunter writes me it was a decided success.

I hope the medical fraternity will arrange for a meeting in Chefoo during 1891 or '92. There are always a number of medical men there during the summer, and more, doubtless, would go if a meeting of special interest were held.

Don't you think it would be a good plan to have an annual or a bi-annual meeting at the different outports, so that if a man was unable to attend a meeting this year, whether from reason of distance, professional engagements or other causes, he might a year or two years hence? Then, too, the stimulus of something ahead to work for and report to is to me at least a real pleasure. When railway lines connect the larger cities this will, of course, be easier, but even now it seems to me possible.

I remain, Dear Sir,

Faithfully Yours,

ROBERT COLTMAN, Jr.

TUNGCHOW FU,

June 30th, 1890.

[We may mention that the principle of the subject-matter of our correspondent's letter was referred to privately on several occasions during the recent Conference, and that we thoroughly endorsed it. Dr. Kerr suggested that a Medical Missionary Conference should be held within the next five years, and Dr. Hodge was of opinion that arrangements might be made for a yearly interchange of meetings, when and where they could most conveniently be held. In making our apology for this personal reference, we venture to submit that the importance of the suggestion warrants it, and that Dr. Colman would do well to communicate with these gentlemen.—*Editor.*]

NOTES AND ITEMS.

Having from time to time within the past few weeks received several communications, slightly suggestive of impatience regarding the somewhat tardy appearance of this issue of the Journal, (and some good advice thereon), we with much diffidence "rise to explain": that we cannot devote quite all our time to the Journal, and, further, journeying to North, Mid and South China to personally supplicate the recovery of Conference papers, ostensibly retired for correction, is inconvenient. We may relevantly add, that, for upwards of three months did we make appeals involving much pathos—and much postage—realizing, as we did, that the omission of these papers would very seriously compromise the continuity of report. We then *resignedly* awaited the authors' very entire convenience, and only venture now, on behalf of the publishers and ourselves, to submit this explanation of our implied dilatoriness.

Since the publishing of the List of Books referred to in the President's Address (page 112) we are in a position to add to the number already given—**眼科指蒙**, *Handbook on Diseases of the Eye*, by A. W. DOUTHWAITE, M.D.

Dr. GILLISON is unable to accept the post of Treasurer of the Medical Missionary Association of China, and he has therefore resigned the office.

The Treasurer begs to notify the Members of the Association that he would esteem it a favor if they would send in their Dues for 1889 and 1890. Explanation may be made that this call is necessitated by circumstances and authorized by the recent

action of the Conference in General Committee (and acted upon by the Members present). Stress being laid not only upon the necessity of so doing, seeing to the increasing current expenses of the Association, but to the fact that their partial remission was unconstitutional. The books of the Association shew a large debtor account collectively, which would, if paid in, and added to the accruing yearly income, suffice for all purposes, and furthermore place the Association in an excellent financial condition, quite prepared to meet all its obligations, without drawing upon any reserve fund; founded only when full charges were made and maintained, and recently for the first time branched, to meet Journal expenses—which, if similar financial conditions were not existing, would be easily self-supporting.

It is with regret that we are compelled to hold over the Hospital and Society Reports until our next issue of the Journal.

We beg to explain that the photograph *gracing* and fronting the title page of this number, is a reduction of the larger plate taken after the Conference. This, together with the May sun of Shanghai, accounts for the very decided lack of expression evidenced in some instances, and the terrible and deplorable accentuation of the same in others. We feel it our duty to impress this fact upon those who, unhappily, were not themselves present, and to distinctly urge, the photograph notwithstanding, that the ladies, and perhaps, more especially, the officials of the Association, are very much in keeping with the aesthetic tendencies of the age, and they simply accept the situation, under protest.

Our attention has been directed to an error made in reporting the proceedings of the Conference, and which has been perpetuated throughout the several readings of proof:—The ninth line of "Discussion," page 104, should read "partly from native sources."

SOCIAL FEATURES OF THE CONFERENCE.

On Thursday and Friday the 15th and 16th of May, several receptions were given by prominent Shanghai people at their own homes. On Saturday a garden party was given by Dr. MATHEWS at St. John's College, and the beautiful lawns of that institution were enlivened by tennis-players, and the animated groups of ladies and gentlemen, who were enjoying the lovely weather. Finally, on Wednesday the 21st, the members of the Association were the guests of the Shanghai medical men. The reception-rooms and the grand banquetting-hall of the Club Concordia were thronged with guests. Medical missionaries from the far interior of China, in native costumes, medical officers from the men-of-war of varied nationalities, the Profession of Shanghai, and the Lady Doctors who graced the meeting by their presence, conspired to make up a brilliant scene. The guests sat down to a well-appointed dinner table, where full justice was done to the viands, while the German Band, hidden in the recesses of a tropical forest of palms, ferns and beautiful flowers, discoursed sweet music. The toasts were well given and elicited some admirable responses, and the musical members favoured us with songs. When at last the hour for parting came, all felt that the meeting had been a success. Many who had met as strangers separated as friends, while old friendships were renewed with greater warmth in the universal glow of kindly feeling and good-fellowship which prevailed.

We have not heard the latest news of Dr. PURVIS SMITH, who we understand

to be seriously ill at Chefoo. Our warm sympathy goes out to him in his illness, and his sorrow.

The following extracts are taken from the *North China Daily News* of the 11th September:—

On Tuesday afternoon an interesting inaugural ceremony took place at the new building of the Woman's Branch of St. Luke's Hospital Shanghai.

"The building in question is designed for the reception of the female patients hitherto treated at St. Luke's Hospital, the increasing number of male patients at which institution has rendered necessary the extension of accommodation. The new branch is to be under the charge of a lady physician, Dr. MARIE HASLEP, who has had some two years' experience in China, together with that of trained assistants who equally have had experience of work among the Chinese. The building, which has been constructed from plans by Dr. BOONE, is very plain and unpretending, but is solidly built and fitted and well designed for the purpose in view. The entire cost, including all fittings, is estimated at Tls. 6,300. On the ground floor are the waiting, consulting, and dispensing rooms. Upstairs are one ward and a few small private rooms for the benefit of those patients who can afford to pay for them. Twelve or fifteen in-patients can be accommodated here, but the bulk of the work will be among the out-patients. A separate structure is provided for the treatment of pauper sufferers, with whom it is found that the other classes of Chinese decline to mix.

"At the opening ceremony, at which a number of foreign ladies and gentlemen were present in addition to Chinese, Bishop BOONE, who presided, gave some information as to the financial part of the undertaking. He said, that in 1883 there was in one of the back streets of the English Settlement a building known as the Gutzlaff Hospital. It was thought by those in

charge of it that it would be well to lessen the number of Hospitals—there were then some that were small and struggling—and the trustees made an offer to amalgamate it with the new St. Luke's Hospital. This offer was accepted, and the goods of the Gutzlaff Hospital were sold, realising a sum of Tls. 4,300. It was with the proceeds of this money and the increase of it that the ground had been purchased and the new building erected; and there was a balance of Tls. 300 left. Bishop BOONE added that the work of this branch would go on with every prospect of success from the beginning.

"Dr. J. A. LEONARD (United States Consul-General) said:—It must be gratifying to everyone present to hear that this institution is so well established financially that there may be no doubt as to its future. Hospitals are not only great public institutions, but I think it is safe to say, that, looking at them from a professional and technical point of view, they are to a great extent the educators of the medical profession. They are the most important and essential schools of medicine. They are institutions which show how much better we live than our fathers lived, and how much better our children will live than we live. We are sometimes tempted to think that there was a time better than this: that those almost forgotten beings 'whose swords are rust, whose bones are dust, and whose souls are with the saints, we trust' lived in a better era than we. But when we consider that such institutions as this hospital are spread all over the civilised world, and how poor, distressed, and suffering humanity has everywhere benefited by them, and when we look back to the periods of the past, we cannot but be satisfied that these are the best days the world has ever seen. We have every reason to rejoice in seeing our missionary boards establishing such institutions as this, and when we see ladies such as those connected with this hospital, come bearing healing in their

hands from our far-off lands to this old civilisation. Blessed among the blessed are those who bring such blessings to people to whom they have not been known! We may be satisfied that this institution will accomplish the work for which it is intended. We may look forward to its existence through many long years, and we may be satisfied that so long as it shall exist those who are called upon to preside over it and effect its kind ministrations will ever have the consciousness of a good work well done.

Rev. S. A. HUNTER, M.D., then spoke as follows:—"The introduction of Women's Medical Missions forms an important epoch in the history of Christian philanthropy. Christianity is pre-eminently the religion of philanthropy. Its founder was a philanthropist in the highest and best sense of the term—he was a true lover of men. His disciples were philanthropists. The leading philanthropists of the world have ever been and are to-day found in Christian lands. Christianity has given birth to all the higher forms of philanthropic effort, which are the glory and crown of modern civilization. But it has been reserved for this age and generation to advance a step beyond the past and give to the world that most sublime exhibition of Christlike endeavour—a delicate and refined Christian woman, living in a foreign clime and among a strange people, in the midst of an imperfect and often impure form of civilization, in order with her own hands to lift up, to touch and to heal her suffering sisters, and to point them to God.

"The reason Christianity has surpassed all other religions in philanthropic power is because the Master put philanthropy upon its true and natural basis—the universal brotherhood of man. I deprecate therefore too much being said about medical work as an evangelizing agency. It is a duty we owe to our suffering fellow-men to help them, independent of any effect it may have upon their lives. Christian medical

missions is not simply an effort to proselyte men. It stands upon a higher basis than that. The Master himself refused to use it solely for that purpose. He wrought his miracles for love and not for effect. He taught us to help others as a duty, and not as a means to an end. Medical Missions so far from being a scheme to catch men is only the proper flower and fruitage of Christianity in other lands transferred to this.

"The special advantages of Women's Medical Work may be briefly stated thus:—It exhibits Christianity in its true light. It elevates woman. It affords the means of doing a great philanthropic work where the doors are closed to men. It accomplishes the end in view in a way least offensive to native prejudices.

"I congratulate you, therefore, upon having added another woman's hospital to the number that are conducted upon the model plan for China. The influence of such institutions is not only felt in the narrower circle of their immediate vicinity, but will sooner or later be felt throughout the length and breadth of the land. I am sure I voice the sentiment of all the one hundred and ten medical missionaries scattered throughout China, when I wish you God-speed in this noble work."

The Rev. Y. K. YEN having addressed the meeting in Chinese the proceedings concluded with an invitation from Bishop BOONE to the visitors present to inspect the premises.

A Bill to Incorporate a Missionary-Medical College in New York City has passed the State Senate, and seems likely to get through the Assembly. The bill provides for the creation of an institution which shall grant medical diplomas on condition that the persons using them practise out of this country. There is no evidence that the proposed medical institution can and will give thorough medical instruction, and it looks very much like a diploma-mill floating

a gospel banner. If medicine is to help the missionary cause it can only be through physicians well qualified in their calling, and the proposal to establish a new medical college, which shall take clergymen and make cheap doctors of them seems most unwise in every way. We trust that the bill will be killed. We have already ample opportunities for medical instruction in this city.—*Medical Record*

It is with great regret we hear of Dr. HONGE's severe illness. With so much that is sad to record at this season of the year, it comes very home to us to touch upon our genial Secretary's illness. We trust the visit to Chefoo will be of much benefit to him and that he will soon be restored to us again.

OBITUARY.

After a short illness of two weeks' duration, Dr. J. W. HERON, one of the American missionary medical men, died on July 26th, of blood-poisoning. The deceased, a skilful physician and surgeon, was very popular, and at the funeral service, which took place on the afternoon of the 27th, nearly every foreigner and many high native officials assisted. A young man, still in the vigorous exercise of all his abilities, Dr. HERON, who was *Champan* of Corea and medical adviser to the King, leaves a widow and two children to mourn his untimely loss.

Dr. H. N. ALLEN will, it is announced, succeed the late *Champan* as physician at the Palace, a position which he occupied with distinction before his departure upon his diplomatic mission to the U.S.—*Tremp. Union*.

JAMES DALZIEL. Died 15th August 1890.

It is with pain we record the loss of one who, though not a Medical Missionary, yet always had their interests and the welfare of their Journal, most warmly at heart. Mr. DALZIEL, the successor of Dr. GULICK,

had, we conceive, a knowledge of missionary statistics, unsurpassed by any man in China, and this, apart from other considerations, was of the greatest assistance to us, in regularly supplying all necessary details of medical missionary life for the Journal. We recall the genial courtesy and ever proffered help, now passed away from us, and deplore the loss of this earnest, simple-hearted gentleman; our deep sympathy goes out to the wife, to the widow, in her hour of bitter trial, and of bereavement.

Dr. T. E. MCBRIDE, American Medical Missionary at Kalgan, died on July 6th, of typhus fever. He came to China last October. He was stricken down while yet in the strength of his youth, and before he had fairly entered upon his work. He leaves a wife and two children.

DEPARTURE.

From Chefoo for United States, via Corea and Japan, Dr. W. R. FARIES of Wei Hien.

BIRTHS.

At Ningpo, on the 31st of August 1890, the wife of Dr. J. B. GRANT, American Baptist Mission, of a daughter.

At the Wesleyan Mission, Hankow, on 16th September, the Wife of Rev. S. R. HODGE, M.R.C.S., L.R.C.P., of a son.

MARRIAGE.

At Tientsin, on the 18th of August, before the U.S. Consul, by the Rev. J. W. LOWRIE, MARY JOSEPHINE, daughter of the late Rev. REUBEN LOWRIE, to BOUDINOT C. ATTERBURY, M.D.

DEATHS.

At Moukden, Manchuria, on the 5th of August 1890, of typhus fever, FLORENCE MARY, wife of T. B. YOUNG, M.B., aged 26 years.

At Shanghai, on 15th of August 1890, DELIA M., widow of the late Dr. BURKE, of Galway, Ireland.

In September, at Chefoo, Mrs. SMITH, the Wife of Dr. PURVIS SMITH, of the London Mission.









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The China Medical Missionary Journal

Edited by

PERCY MATHEWS, M.D., F.R.G.S.,
Shanghai.



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1890.



The China Medical Missionary Journal.

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Medical Missionary Association of China.

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VOTING PAPER.

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IMPROVED FORMS FOR ITS ADMINISTRATION.

NOTWITHSTANDING the activity of research in the discovery of new therapeutic agents, and the efforts made to supplant it, Cascara Sagrada remains to-day easily chief of the remedies for the radical relief of chronic constipation.

The physician now has the choice of several eligible forms in which to prescribe it; the fluid extract soluble elastic capsules of the extract, from one to three grains; pills of the extract, alone or in combination with adjuvants, and *Cascara Cordial* without question, the pharmaceutical preparation of Cascara Sagrada which has met with most favor and is now most largely used in the treatment of constipation.

Any therapeutic action inherent in Cascara Sagrada is only possessed by the true *Rhamnus Purshiana*, and there being many inferior and spurious preparations of the drug in the market, we would ask physicians in prescribing to specify our product. Having introduced this drug and made a special study of its nature and action for years, and having unequalled facilities for obtaining supplies of the highest quality, we believe our product to be superior to any other offered.

We would particularly request physicians who have not met with success in the use of Cascara Sagrada to ascertain the product they are prescribing, and to make trial of that of our manufacture.

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RENEWED attention has recently been attached to this drug as a remedy in gonorrhœa. (See Dr. E. Finger's article, *Int. Klinische Rundschau*, also editorial *New York Medical Record*). We were the first to introduce this drug, and can supply reliable preparations of it.

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The duration of the first attack of fever ranged from three to five days, the first intermission from five to ten days, the second attack of fever from three to five days, the second intermission, in cases where there was a third attack, being very short, only one day, while the third attack was also correspondingly short,

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The

China Medical Missionary Journal.

VOL. IV.

DECEMBER 1890.

No. 4.

RELAPSING OR FAMINE FEVER.

By JAS. B. NEAL, M.D.

During the winter and spring of 1889, unusual scarcity prevailed in many parts of the province of Shantung, China, amounting in some parts to actual famine, in others, as in the writer's former prefecture of Tungehowfu, to merely very high prices for the ordinary staples of food.

Returning early in June from the famine region, where reports of fever were just beginning to prevail, I found during the ensuing few months an unusual prevalence of fever in Tungehowfu, there being some twenty-two cases under treatment in hospital, ten of which were diagnosed as Relapsing Fever. From these ten cases, I have selected six for reporting upon, partly because their temperature charts show so plainly the attacks and remissions of fever, the only exception being that of No. 3, and partly because the other symptoms correspond so nearly to the descriptions of the disease given by various authors as to leave no room for doubt as to the diagnosis.

As will be seen by an examination of the appended notes, the symptoms which were almost invariably present in these cases, and which may be considered diagnostic of the disease, were nausea and bilious vomiting; jaundice, slight or severe, shown not only in the yellowness of the surface but also by the presence of bile in the urine; pains in the muscles and joints, usually severe and causing the patient much distress; and finally the occurrence of relapses.

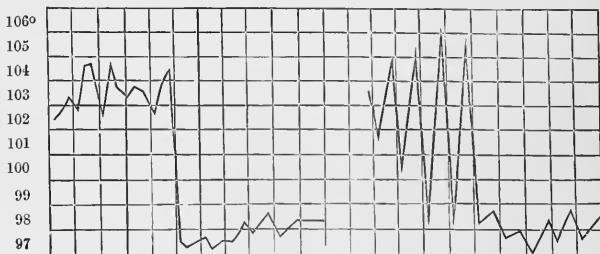
The duration of the first attack of fever ranged from three to five days, the first intermission from five to ten days, the second attack of fever from three to five days, the second intermission, in cases where there was a third attack, being very short, only one day, while the third attack was also correspondingly short,

only in one case exceeding two days. In no case did I observe more than two relapses, that is, three separate and distinct attacks of fever. As will be observed, the fever in the relapse usually ran higher than in the first attack, and always, whether in the first or second attack, fell by crisis. The highest temperatures reached were 107.2° and 108° , the usual range being from 103° to 105° , these very high temperatures showing themselves only at the time of a crisis. Delirium was a very infrequent accompaniment of the disease, while low typhoid symptoms were not observed in a single case. The convalescence was always much protracted, the patient finding his strength very much reduced by the fever, and requiring a long time to get back to his former state of health. The intermissions were characterized by no symptoms except loss of strength and occasionally a slight persistence of the pains and jaundice. It did not seem to be virulently contagious. Only one of seven people, who were in intimate contact with the patients, took the disease. Treatment in my cases consisted for the most part simply of milk and gruel diet at regular intervals, with antipyrin or antifebrin when the temperature rose above 103.5° .

RECORD OF CASES.

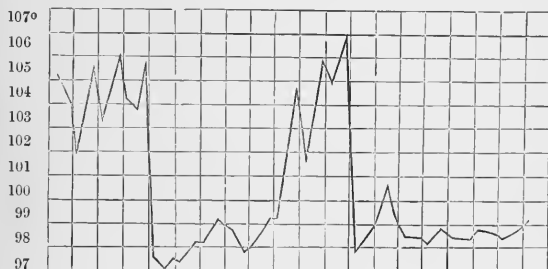
Case No. 1.—Male, age 21, scholar in college.

Is not naturally strong. Disease began two days before temperature observations were taken, with headache, nausea and fever, second day felt chilly at times. Vomited a number of times during first three days, ejecta consisting of food, bile and round worms. Complained of a good deal of pain in stomach but no tenderness on pressure, and of pains in his legs; jaundiced. First attack of fever six days. Temperature fell by crisis, and intermission lasted eight days, second fever five days. Was delirious one night.

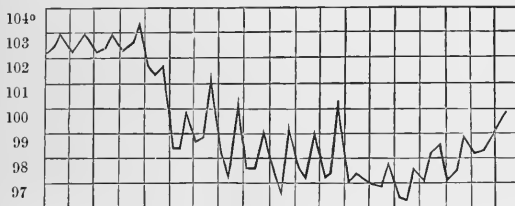


Case No. 2.—Male, farmer.

Good physique. Came in on second day of fever with temperature of 105° , giving no history of nausea or vomiting. Complained afterwards of pains in legs, pretty severe, and vomited several times, some jaundice. First fever five days, intermission five days, second fever three days, intermission one day, third fever one day.

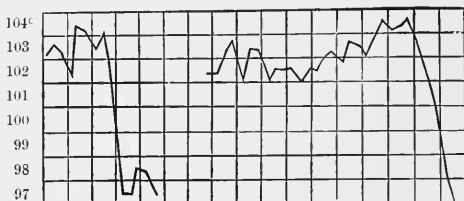
*Case No. 3.*—Male, age 33, medical student.

Usually very strong and robust. Disease began with feeling of feverishness, headache and dizziness, succeeded by nausea and vomiting up of sour liquid, yellowness of surface and dark colored urine, showing presence of bile on addition of sulphuric acid and sugar, and by severe and constant pains in muscles of legs and joints of fingers. After twelve days of continued fever, without delirium or any low typhoid symptoms, his temperature gradually declined to normal, but his convalescence was very slow. He had no relapse. I have included this case among the more undoubted cases of Relapsing Fever because I think the general *ensemble* of symptoms point more clearly to its being this disease than any other fever, although I am aware there is room for doubt, especially as a slight discrete rash of slightly raised dark red spots declared itself about the fifth day on his abdomen and arms, pointing to the possibility of its being Typhus, though no typhoid symptoms were developed.



Case No. 4.—Male, age 19, beggar.

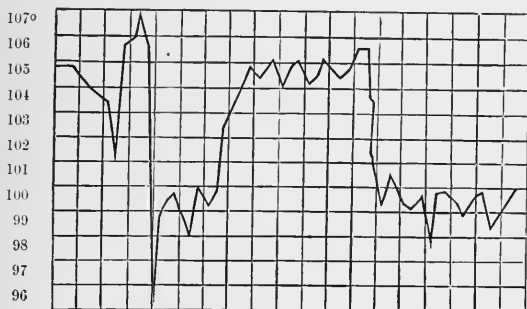
Underfed, weakly. Disease began with headache, chilliness, general pains, followed by vomiting, severe jaundice, and pains in arms and legs and knuckles. He had fever for only three days, when it suddenly left him and he was free from fever for ten days, when he had another attack, which lasted for only two days, the symptoms being about the same, the pains, however, being more distinctly localized in the larger joints, such as his shoulders, elbows and hips. His case is interesting as showing a very long interval between the attacks. He had been sent home after eight days' freedom from fever, which explains the hiatus in the observations of temperature.

*Case No. 5.*—Male, age 22, farmer.

Came in on fourth day of fever. Began with general pains, nausea and vomiting. Heavily jaundiced; urine dark colored. During the relapse, which came on after six days' intermission, he suffered from diarrhoea and vomiting. Complained very little or none at all of pains in limbs. Fever left him the second time after five days, but he was granted only one day's respite, it set in again and continued seven days, when he ran away. Was slightly delirious at times.



Well-nourished. Began with malaise and general pains, followed on second day by severe pains in knee and shoulder joints. Slightly jaundiced and nanscated. First attack of fever lasted six days, and during the first few days of the intermission he still complained some of pains in large joints. After six days' freedom from fever he had a second attack of four days, during which, at the time of the crisis, his temperature reached 108° . It fell immediately, however, to below normal, but continued low for one day, rising afterwards to only 101.5° for the day and then declining to the normal *



A PLEA FOR GRADUAL WITHDRAWAL.

By ARTHUR MORLEY, L.R.C.S. & P. ED., *etc.*

During its meetings in Shanghai, the Missionary Medical Association unanimously requested the Conference to condemn the indiscriminate distribution by Church members of pills containing opium; it also appointed a Committee to prepare prescriptions for the use of non-professional men in the cure of opium patients, specially directing that they contain no form of the drug. Thus the Association not only condemns the indiscriminate distribution of opiates, but also affirms that in no instance are they required in the treatment of the habit.

* The highest temperature attained has been omitted in the Author's Thermograph sketch. The accompanying woodcut is a facsimile of the same, and we did not notice it until after the block was cut and it was printed off.—*Editor*.

for its formulæ provide for no such instance. If opium be never required, its use is always unjustifiable; and, therefore, in the opinion of the Association, the only justifiable method for laymen to cure the habit is the total and immediate withdrawal of the drug. The Association committed itself to this conclusion after scarcely any discussion; nor has the subject yet been dealt with in this *Journal*. I propose, therefore, notwithstanding the narrowness of my special experience, to give the readers of the *Journal* some of the results of that experience, hoping that my doing so, may at least be of use in pointing out the direction, in which useful enquiries may be made by those who have fuller opportunities.

If only our hospitals were prisons, we might get some of the brilliant results which have been achieved in Hongkong,—that is, if we could also then get the patients. A man comes to us of his own will to break off opium. He does not look to have the craving, which he knows must be endured, destroyed by a charm; he wants us to give him what help we can to overcome it, which, in plain English, means to make the cure as easy for him as possible. If, therefore, it be easier for him to break off the habit gradually, and if the gradual breaking-off has no counterbalancing evil effects, we ought to help him to that extent, and not play him false by inflicting a useless suffering upon him.

There are at least two pieces of evidence to shew what precise amount of suffering is relieved by a gradual withdrawal of the drug: there is the proportionate number of those under different treatment who fail to endure the pain; and there is the proportion who require the assistance of narcotics. Before I give these figures I must explain the treatment which I adopt. I follow no rigid rule, but roughly divide the patients into two classes: first, old smokers and those much enfeebled by the habit; to these I generally give opium in diminishing doses, for from four to seven days, at about their usual time of smoking, and sufficient perceptibly to lessen the craving, but of course never, even at first, wholly to satisfy it; secondly, those who are light smokers or who appear to be in tolerable health; these I break off at once, except that I frequently—that is, in nearly half of their number—give them the stimulant which they so often need, in the form to which they have been accustomed, minute doses of opium, but never sufficient appreciably to lessen the craving; of those included in this class the one to whom I gave most opium took a total amount of 70 drops of laudanum, the average being 45 drops, scarcely a single full dose for a man unaccustomed to the drug, and that divided into 3 or 4 doses. The patients do not know that they are undergoing different treatment, or that they ever take opium after coming into hospital, for to all appearance their medicine is the same, containing capsicum and nux vomica. Nor having decided that a man is not to have opium do I ever give it him for his craving; he is as free as the other patients to leave the hospital at any time, but he knows that he cannot come

back, and will forfeit his deposit-money of 1,200 cash. The total number of my cases for the two years just completed is only 94. Of these the notes, if taken, of 17 have been lost; of the remaining 77, 30 took opium in diminishing doses, and 47 either not at all or in the minute quantity as explained above; of these 47, 18, or 38 %, not counting one death, left the hospital without my consent, thereby forfeiting their money; whereas of the 30 who were broken off gradually, and who included the heaviest and the most enfeebled smokers, several of whom also ate opium, 7, or 23 %, left without permission. I do not conceal from myself that young smokers are apt to flatter themselves that they can easily give up the habit, and are disappointed to find that their craving is greater than they imagined; whilst an old smoker knows better what it means, and will not come to the hospital unless he be fully determined to go through with cure. But this I do not think invalidates statistics as much as another consideration, which is, that young smokers often come for cure at the behest of their parents, without any set purpose of their own to give up the habit; also, some patients, no doubt, leave the hospital at the call of business, sincerely believing themselves to be cured; it is, however, impossible to eliminate this number.

There is also the evidence of the amount of narcotics required in the two groups. This is obviously a less decisive test than the former, because the amount of narcotics given depends more upon the physician, but it points in the same direction and pretty nearly in the same proportion. I find that of the patients from whom the drug was suddenly withdrawn 54 % required narcotics, whilst of those who took opium only, 36 %, and they in considerably less quantity.

If the number of these cases be sufficient to warrant the forming of an opinion, which I know may be doubted, we must conclude that by suddenly withdrawing the drug we nearly double the chances that the patient will not go through with the treatment, and therefore presumably nearly double his sufferings. Such failures must count as failures to the physician, for he has not succeeded in doing that for which the patient primarily came to him. Why then not make the cure still more gradual? Had I a private patient and his full confidence, I should certainly do so. But the loss of time and money of staying in hospital is a great consideration for most of our patients; nor is the idling about wards good morally for opium-smokers, who ought to set about some healthy occupation as soon as possible. This loss of time is the chief disadvantage against a gradual cure, but if a patient take diminishing doses for seven days—and that, according to my cases, is an immense help to him, the first dose being sufficient only half to satisfy his craving—the extra time required cannot be more than four days. Beyond the saving of this short time, I know of no advantage in suddenly withdrawing the drug, and can imagine none, except that it has been said that those patients who break off suddenly stand better afterwards. This is an

exquisitely interesting statement, but should be supported by evidence. I can imagine that a sharp breaking with the past may be a great moral help to the strong man. Few of these men are morally strong, and when so many of the weak cannot bear the sharpness of the strain, we are helping the strong at the expense of the weak.

I must write a sentence or two as to the relative safety of the two plans. There is no doubt whatever that most of the patients who come to us can be broken off suddenly without any danger to life, but not all. Out of deference to our President, I feel bound to quote his opinion here against me. Dr. BOONE tells us, that in his long experience of suddenly withdrawing the drug he has not known a single opium-patient give him half-an-hour's anxiety; but he also tells us, that in his early days he withdrew the drug gradually; and it occurs to me that therein may be the secret of his later success. He only attempted the more difficult cure after becoming thoroughly acquainted with this class of patients by treating them at first according to the safer and surer method. I do not know what Dr. BOONE's custom is, but I know that some medical men, who practise only the routine treatment of suddenly withdrawing the drug, frequently refuse to undertake bad cases. I should be bold enough to refuse none provided that I was allowed plenty of time. To return: we unfortunately have not all had Dr. BOONE's long experience. In Ich Ngan we have already lost one patient—an old smoker who was broken off suddenly and died on the twelfth day. To those in Hongkong who laugh at the gullibility of Mission doctors, I will not affirm that this man did not sham death, but only that his burial was no sham. I have also had cases which shewed symptoms of delirium, but only one who got into anything like a serious condition. He too was an old smoker, but seeing him determined to give up the habit, I resolved somewhat hesitatingly to break him off suddenly. On the sixth and seventh days he slowly sank into a state of delirium, much like delirium tremens, but fortunately he improved under digitalis, or I should certainly have returned at once to full doses of opium and begun the cure again more gradually. I am vain enough to presume that there are those who undertake opium curing still less experienced than myself; and it is for them that the Association is preparing its prescriptions and explicitly recommending precisely that method of cure which most requires skilled treatment. At all events, though the formulæ are not yet published, it is certain that they will contain drugs more dangerous to an opium-smoker than opium, whilst the use of opium would greatly lessen the necessity for those drugs. For instance, what will be recommended for sleeplessness. Bromide and most of the narcotics are useless; chloral and sulphonal are not harmless in the hands of an untrained man, where large doses are often required. A medical missionary informs me that he once lost an opium case through chloral. A foreign layman may acquire a knowledge of his drugs sufficient to recognise

when they are doing harm. But there are many natives who take opium patients in hand. That some of them are humbugs I do not doubt; but not all. There are few missionaries who have made enquiries and not found that, by the help of these men, many opium-smokers have been enabled to forsake their pipe without the inconvenience of leaving their business or the expense of coming to hospital. The world, even with its maladies, was not made for the doctors; and we, especially, being also missionaries in a country where trained medical men are so few, should not, because of a theory, hamper uncertificated men who do good. They almost invariably use opium in some form; and I for one should not feel justified in putting into their hands the powerful drugs which it is safe to assume that the Association prescriptions, if of any use, will contain, and take from them their poppy-heads.



TUMOUR OF LATERAL LOBE OF CEREBELLUM.

By R. A. JAMIESON, M.A., M.D., M.R.C.P.,

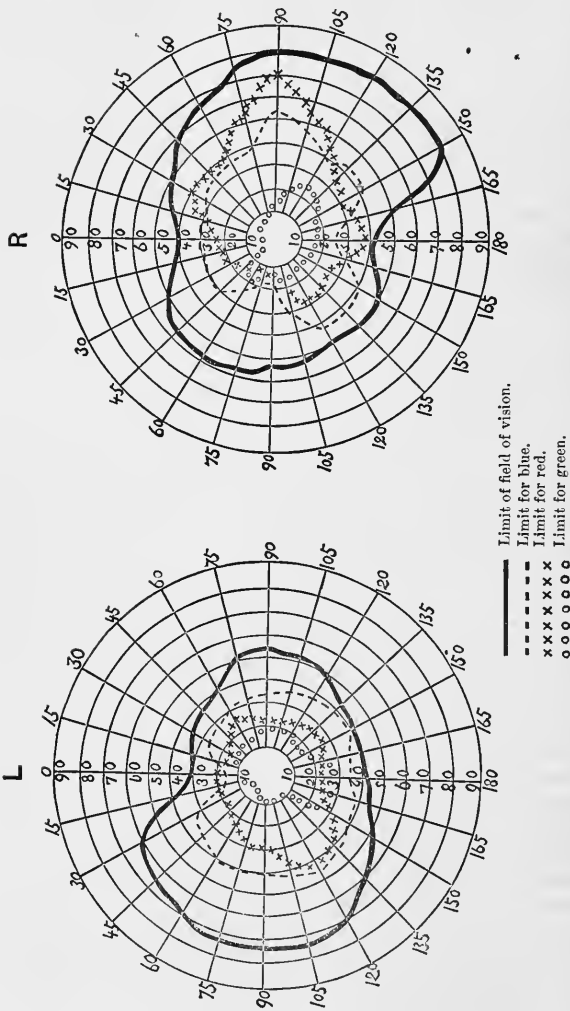
Consulting Surgeon to the Customs.

Mrs. D., born in 1860. Father died at an advanced age of chronic bronchitis. Mother, one of maternal aunts and a daughter of this aunt died of phthisis. Two maternal aunts living, one aged 50, and the other 70, both healthy women.

Patient is of delicate appearance, very bright and intelligent. Has never shewn any symptoms of phthisis or any tendency to bronchial catarrh. On examination, however, slight impairment of resonance is observed at both apices, with faint crackling limited to the sub-clavicular regions. Heart normal. Never any morbid symptoms referrible to the abdominal or pelvic viscera. There is no recollection of any fall or blow on the head.

She was married in 1882, and arrived in China shortly afterwards. She had two children, one in March 1883, the other in January 1885. Both these children are (1890) remarkably healthy.

Up to April 1884 Mrs. D. enjoyed excellent health. Then she complained of paroxysms of neuralgia of the right side of the face and head, increasing in severity during the night. As time went on this pain became more and more severe, so that at last it completely prevented sleep except when overcome by narcotics. A little later in onset, but permanently adding itself to the paroxysmal neuralgia, was a fixed and intense pain, described as "boring," in the vertex and occipital region. No part of the head was at any time markedly sensitive to moderate percussion.



In the autumn of 1884 deafness on the right side gradually but rapidly declared itself. The external ear was normal and the Eustachian tube pervious. There were occasional subjective sensations of singing and buzzing. By January 1885 deafness was absolute in the right ear, and the tuning fork on the vertex was inaudible on that side.

By the middle of 1884 the right eye began to fail. At this time an ophthalmoscopic examination gave negative results. Fugitive attacks of partial or complete blindness of both eyes were soon observed, vision on the left side being normal in the intervals. In February 1885 it was noted that both discs were cloudy. From this out, each paroxysm of blindness was complete, lasting for variable periods from five minutes to twenty. The return of sight was always announced by the sensation of white, zig-zag flashes in both eyes. The pupils were dilated and but slightly sensitive to light. Little or no difference could be made out between the condition and reactions of the right and left. There was no strabismus, no nystagmus. In October 1885 the papilla on each side was prominent, with tortuous and dilated vessels, and ill-defined borders passing into a general haze.

The limits of the field of vision for different colours at this period, as indicated in the accompanying diagram* are specially worthy of study, on account both of their extraordinary irregularity and of their abnormal relative positions. Taking only the latter into consideration, it is well known that under ordinary circumstances colours are perceived in the following decreasing order of extent as regards the visual field :—

Blue.
Yellow.
Orange.
Red.
Green.
Violet.

The colours indicated by italics in the above list were those alone tested.

CHARCOT (*Œuvres Complètes*, iii. 260) lays down as at least a provisional law that when the visual field for blue falls within that for red the sign is completely characteristic of hysteria. Here it will be observed that while its periphery in the right eye loops outside that of the red in three places, by far the larger portion of the area for blue falls inside the red line. On the left side the red lies normally within the blue except at one point where the blue line encroaches a little on the red field. Apart from this all the stigmata

* Three perimetric examinations were made within a fortnight, with results practically identical. The diagram reproduced is that of the second examination, made on the 17th October 1885. It is very curious that in respect of area the absolute field of vision was more extensive on the right side than on the left.

of hysteria were totally absent. Cutaneous sensibility was normal and equal on both halves of the body, odours were perceived alike in both nostrils, and the taste of sapid substances was appreciated equally on both halves of the tongue.

From beginning to end there was no paralysis, paresis, or contracture of the limbs; no paroxysmal pains in the trunk or extremities; constipation existed, but no stammering or incontinence of the rectum or bladder. There was no fever. The headache described above increased in violence and persistency, but in the late spring of 1885 began to be accompanied by somnolence, which no doubt rendered it somewhat less intolerable. About this time it was observed that movements of the head were rendered difficult and slightly painful by stiffness of the neck. A little later this stiffness passed into retraction, which, however, was never very marked, and could always be overcome by trivial effort.

Respiration was normal until near the close of life, when, during the last two days, it became slow and irregular without ever approaching the CHEYNE-STOKES type. The pulse was variable in character and rhythm, generally hard and rapid, sometimes irregular with rare intermittences. There were irregular flushings of the face and neck, usually coincident with the occurrence of the scintillating scotomata which presented themselves at the close of each period of blindness. The catamenia ceased in July 1885 without any concomitant pelvic symptoms. At no time was there either sugar or albumen in the urine.

From May 1885 Mrs. D. was much inconvenienced by the collection of mucus in the throat, chiefly in the early morning. Finally it became almost impossible for her to swallow fluids, and especially hot fluids which suddenly loosening the mucus brought on vomiting.

About this time or a little earlier (shortly after rising from her second lying-in) she began to walk like one drunk, with a tendency to propulsion, and to fall to either side indiscriminately. Vertigo, with disappearance of objects towards the left, occurred as soon as she assumed the standing posture, and was rarely, but only rarely, present while she remained recumbent. When standing it was intensified by closure of the eyes. Walking filled her with apprehension; she slid each foot a short distance after the other, not daring to allow either to quit the ground; and soon she could move from place to place in her rooms only by supporting herself on the furniture. The knee phenomenon was absent on both sides from the beginning of 1885. Gradually, trembling of the hand and forearm muscles declared itself with incoordination on voluntary effort, so that she could not sew or do fancy work, and her writing became illegible. At the same time her grasp of bulky objects was firm and tolerably steady. These symptoms became more aggravated as the year advanced, so that from the beginning of October, while the headache fortunately

diminished in severity, vertigo became so persistent that she could not take a single step without being half-carried.

Nausea and vomiting, independent of the collection of mucus in the pharynx before mentioned, now added much to the distress, and interfered seriously with nutrition. Emaciation progressed rapidly.

Early in October, a small bony growth, which caused much pain, was removed under chloroform from the external border of the alveolar process of the lower jaw on the right side. Projecting inwards it compressed the wisdom tooth, which was extracted after its removal. Patient took chloroform without difficulty of any kind, and recovered quickly and completely from its effects. During the following night the left side of the face became for the first time numb, and remained so for a few hours, when normal sensation returned. Similar paroxysms occurred frequently during the ensuing months.

On the evening of the 20th October, after a day of remission of symptoms, Mrs. D. was seized with a violent rigor accompanied by numbness ("pins and needles") of the right side of the face, tongue and scalp, but not extending to the neck. Common sensibility was lowered but not abolished over the numb area. Intelligence was not affected, there was no motor disturbance, the tongue was protruded straight. The symptoms all passed off during the night, but the attack was reproduced with increased violence next evening at the same hour, and persisted undiminished in intensity until the following morning. In the afternoon of the 22nd numbness, though less marked, was present, and the right angle of the mouth was slightly dragged. Next day speech was indistinct, but this was found to be due to an ulcer rapidly developed on the right border of the tongue. About this time tingling sensations in both legs were experienced, and they persisted paroxysmally to the end. There was now (end of October) lessened common sensibility over the entire right side of the neck from the level of the mastoid process to that of the clavicle.

As I had announced the existence of cerebellar tumour and the probability of sudden death, a second opinion was obtained at my request. Mrs. D.'s friends had suggested her return to Europe, and this suggestion was approved after a cursory examination,* on the ground that the symptoms were "all nervous and probably hysterical," and that the patient was young and needed only time for recovery. I was compelled to denounce this opinion as wildly erroneous, and it was decided that the voyage should not be undertaken. Things went steadily from bad to worse. No new nervous symptoms developed, but all those

* Physical examination was limited to the sacramental inspection of the tongue and counting of the pulse, followed by an enquiry as to whether the patient could whistle, which, as it happened, was an accomplishment which even in health she had never been able to display

above noted became aggravated. Complete anorexia hastened the decline of strength, and nutritive enemata proved a failure. The patient gradually sank without any dulling of intelligence, except transient losses of memory, up to twenty-four hours before death.

Death occurred on the 23rd December 1885. For thirty-six hours before death there was retention of urine. For twelve hours there was dorsal decubitus with the head strongly retracted. There were also constant rolling from side to side and profuse sweating. The pulse varied between 54 and 65, was hard and irregular with frequent intermissions. The respiration was jerky and irregular. Temperature in axilla 103° to 104°. Semi-insensibility; questions answered only by groans. Features gradually became cyanosed. There were a few very slight general convulsions immediately before death.

The treatment had mainly consisted of Iodide of Potassium, to which Perchloride of Mercury was occasionally added.

Autopsy, 54 hours after death.—[The temperature of the air had never risen above 32° F. in the interval.] Rigor mortis still present. No signs of decomposition. The head only was examined. Veins of scalp injected; slight oozing of blood from veins of diploë; no adhesions between calvarium and dura. The membranes of the convexity appeared normal, but the arachnoid was distended. The sinuses were full of liquid blood. There was no marked congestion of the vessels of the pia, and no exudation on the convexity or at the base.

The convolutions were not flattened. Clear fluid in large quantity poured from the third ventricle, having distended it to such an extent that its floor was translucent, and the dilated lateral ventricles contained the same fluid, the actual bulk of which could not be accurately estimated. The foramen of Monro admitted the tip of the little finger. The aqueduct of Sylvius was dilated. The brain substance was rather bloodless than congested on section. No lesion was discovered anywhere. The corpora quadrigemina were carefully examined, but appeared to be intact.

Occupying, or rather replacing, the right lobe of the cerebellum, was a grey hard tumour, larger by about one-third than the left lobe, but almost reproducing the normal shape of the lobe. It possessed an ill-defined capsule, obviously derived from the pia mater. The great horizontal fissure could be made out, but the division into lobules was almost totally obliterated on both upper and lower surface. The tumour was smooth on section, shewing no trace of foliation; on pressure it exuded a small quantity of slightly sticky fluid. In the centre, and occupying about one-fifth of the bulk of the tumour was a soft red mass, originating probably in the corpus dentatum. This, under the microscope, was seen to be constituted of large multinucleated round cells, apparently supported only by fine vascular meshes. The solid portion of the tumour presented the characters of round-celled gliosarcoma.

The right processus cerebelli ad testes was markedly reduced in size, and hollowed by pressure which also had left its imprint on the right side of the floor of the fourth ventricle. This depression included the positions assigned to the sensory nucleus of the fifth nerve, the nucleus of the seventh (facial), the two nuclei of the eighth (auditory) and perhaps that of the nucleus of the ninth nerve (glossopharyngeal). The valve of Vieussens was not recognized, but this may have been an accident of dissection. The two divisions of the fourth nerve were seen beneath the corpora quadrigemina. It was noted that the middle lobe of the cerebellum was hardly, if at all, deformed by pressure.

COCAINE AS AN ANÆSTHETIC.

By WM. W. SHRUBSHALL, L.R.C.S. & P. Ed.

At this period after the introduction of Cocaine as an anæsthetic it is unnecessary to discuss its usefulness. In ophthalmic practice we are all acquainted with its value, and those medical missionaries who like myself are situated in the interior, with but inexperienced native assistants, will know the difficulties which attend an operation when chloroform is used. One needs one eye on the condition of patient and the other at the operation, and attention thus divided is certainly not conducive to the best results, hence the value, especially to us, of an efficient local anæsthetic.

The following case (almost identical with that given by Dr. CHRISTIE in a recent Number) is confirmatory of the effect of Cocaine in such circumstances.

LŪ CHANG CHIU, æt. 51 when admitted, had been suffering from epithelioma of penis for more than two years. Fetid discharge abundant. The man was weak, emaciated and irritable.

On two separate occasions chloroform was administered; each time proved the patient to be an unsuitable subject. I then injected in the line of intended incision thirty minims of a five-per-cent solution of Cocaine Hydrochlorate, in five-minim doses. In ten minutes after the first injection all parts of the penis anterior to the tourniquet were perfectly anæsthetised. The amputation completed, while I was tying the arteries, patient inquired "Is it cut yet?"—sufficient evidence of the painlessness of the operation. Anæsthesia lasted for about 18 hours. His recovery was complete without a bad symptom.

As shown by MAYO, ROBSON and others, the anæsthetic effects of Cocaine are much intensified, and the possibility of poisoning lessened, by applying an Esmarch's bandage above the seat of injection.

In operating on the extremities or in amputation of penis there is of course no difficulty in applying the tourniquet, and in removing small tumours, etc., from the trunk I find that anæsthesia takes place quicker when, immediately after injecting the Cocaine, a glass or cup be inverted over the injected area and kept there with firm pressure for a few minutes, thus retarding the circulation. In the removal of small tumours this has answered well. In several cases—resection of phalanges, removal of tarsal tumours, etc.—in which Cocaine has been used, I have seen no toxic effect, and anæsthesia has been as perfect as could be desired.

Lately I had a case of subglenoid dislocation of humerus which resisted reduction by the ordinary "heel-in-axilla" method, but was quickly reduced by traction at right angle to trunk, as advocated by Dr. NEIL MACLEOD in an early number of this Journal.

Patient complained of no pain during the reduction by the latter method. There was absence of any "click" or jerk indicating the return of the head of humerus, and nothing worse than the ordinary effect of a contusion subsequently occurred.



BOIC ACID AS AN ANTISEPTIC.*

By H. M. McCANDLISS, M.D.,

Kiung Chau, Hainan.

Since the introduction of antiseptic surgery a great many substances have been brought forward, made prominent, and then dropped into obscurity. Among these a few have been brought back from their neglected state and placed alongside of those which have constantly held the first rank. It has remained for bacteriologists to formally declare what is the mode and extent of antiseptics, and which the most worthy of these agents.

Mr. C. T. KINGSETT (*British Medical Journal*, p. 1192, November 1888), after a series of experiments with various antiseptic agents, determines that all antiseptics act in similar ways: (1) either killing the organisms directly, or (2) by causing their death indirectly by altering the composition of the medium in which they live, and these being due either to hydration or oxidation. As a result of his observations, he decides that as a rule "acid solutions are found to be better antiseptics than alkaline ones."

* Read before the Canton Medical Society.

One frequently sees in the medical journals paragraphs on poisoning by corrosive sublimate, by carbolic acid, and by iodoform. Corrosive sublimate and carbolic acid are now most widely used, even though they are both most severely criticized.¹ Some go so far as to say that the moral effect of the odor of carbolic acid is its chief virtue. The adverse criticisms vary in kind from those of LAWSON TAIT, who humorously desires a pad of good ordinary germs for a dressing after abdominal section, to SENGER who finds that antiseptics are dangerous and injurious, corrosive sublimate being the most dangerous, and then in the following order: iodoform, carbolic acid, salicylic acid and boric acid; and advises that we use LAWSON TAIT's sterilized water, or a solution of salt.

One of the objections urged against carbolic acid and corrosive sublimate when treating wounds in which primary union is desired, is that if the antiseptic is really enough to be effective it forms an eschar, which can itself become a nidus for germs, and which in any case must be thrown off or absorbed before union can take place. Iodoform does not seem to meet with this objection, but it does have the element of danger, as seen by the detection of iodine in the urine, and its odor also is somewhat of an objection.

The *U. S. Dispensatory* asks "Whether boric acid is a poison, and if so, in what doses, can not yet be considered as determined. MODODEWKROW is stated to have had two fatal cases of poisoning, but as in one case a lumbar abscess, and in the other case a pleuritic cavity, was freely washed out with a five per cent solution, it is possible that the fatal collapse may have been the result of the operation."

BARTHOLOW says of boric acid, "it arrests fermentations and putrefactive changes, and is destructive of minute organisms, bacteria, vibrio, etc.; applied to wounds it is free from irritative effects; it lessens suppuration and prevents decomposition."

Dr. GREENE (*Boston Medical and Surgical Journal*) has used it internally in the treatment of chronic cystitis, prostatitis and in septic diseases, exhibiting as much as a drachm every four hours without ill effect.

In the large class of cases where we desire union by the first intention, a substance is wanted that will not interfere with that union, further be thoroughly antiseptic, and its absorption occasion no alarm. This substance is supplied in the dry boric acid dressing. My attention was first called to this method of using boric acid by an article in the *British Medical Journal*. I have made use of the dressing in a series of minor operations, and although sprinkling it quite freely over opposing raw surfaces, it has not prevented union, and has kept surrounding tissues free from odor. In a case where I removed a tumor from the frontal bone, weighing probably an ounce, I sprinkled boric acid freely inside, and then stitched up the wound; opposing surfaces being kept in contact

with compress, the whole wound healed by first intention. In bone operations where the necrosis has been occasioned by syphilis, we naturally use iodoform, but in the non-syphilitic, we may safely rely upon boric acid.

The antiseptics of large ulcers is in China an important matter, and especially ulcers of two kinds—the leprous ulcer, which fills the dispensary with its foul, almost cancerous, odor, and the common large ulcer of the leg. There is a certain portion of this island which is very unhealthy for non-residents, and the Chinese who visit the district are said to be bitten by the Loïs demon, as some return with large ulcers of the legs and feet. Last autumn I had a party of five, all of whom had gone to this district, and they all came back with these ulcers. Four of them under tonics and ordinary dressings rapidly healed, but the fifth would get to a certain point in healing and have a relapse. He came back this spring in a worse condition than ever. I began giving him daily doses of the phosphates of iron, potash and lime, and after washing off the ulcer, which was the size of my extended hand, I dusted it thickly with dry boric acid, wrapping it round with tough Chinese paper. The man's temperature fell, the appetite grew better, he could attend to his work, and the ulcer rapidly healed, leaving but one regret, *i.e.*, that I had not skin grafted the wound.

For the large leprous ulcers iodoform may be as good and possibly better than boric acid, but the difference of expense at once decides in favor of dry boric acid. The last English quotations put boric acid at 7 pence per pound, and iodoform at 19 shillings. I have no means of knowing whether the fever which so many of the lepers suffer at the time that ulcers open is due merely to the inflammation, or whether it arises from the absorption of septic material, but it is certain that the boric acid corrects the foul condition of the ulcer and gives at least that much comfort.

I have a patient, a young man, who has suffered for several years with polypus of the nose. When I first saw him two years ago I made several attempts to remove the parasites, but the man belongs to the family of bleeders, and I was compelled to desist from further attempts. The discharge is quite fetid, and the young man comes quite regularly to get a supply of boric acid to insufflate. It corrects the foul odor and lessens his headache.

A number of carcinomatous patients find their way to the Dispensary, and where the tumor is broken and fetid, I use the boric acid to dust over, and after a few days the friends and bystanders are less offended when the dressing is removed.

These few remarks are sufficient to show that I find in boric acid a widely-useful cleanly antiseptic. There are doubtless others as handy and harmless, efficacious and cheap, of which I would be glad to hear.

[As *apropos* to the foregoing article, we append the following, taken from the *Scientific Miscellany*, October 1890.—ED.]:—

“Some very interesting and possibly important experiments have been made during the past five years by Dr. GAUCHER of Paris. Bacilli of tuberculosis were injected into several rabbits, producing the disease in all cases. Other rabbits were then inoculated in just the same manner, but were fed afterward with bran mixed with boracic acid. On killing these rabbits after a time, no trace of tubercular disease could be found. How far the boracic acid might be beneficial to the human victim of tuberculosis is not known, but in such trials as have been made lung decay has been arrested and improvement in every way has resulted.”

SUPRAPUBIC LITHOTOMY.

NOTES ON FIVE CASES PERFORMED AT THE AMOY CHINESE HOSPITAL.

By B. S. RINGER, *M.R.C.S. & L.S.A. Lond.*

Case I.—TIAU LAI, aged 30, presented himself at the Amoy Chinese Hospital, March 18th, 1889, and complained that for many years he had suffered much difficulty in passing water, and that for the last two weeks it had been constantly dribbling away. He seemed very weak, and bent his body forward as he walked painfully and slowly along.

After examination with sound, a stone of large size was diagnosed, and the patient being thin and a good deal wasted, it could be plainly felt by manipulation between the abdominal wall and the rectum.

On the 12th April 1889, chloroform was administered, and about 8 or 9 ounces of a warm solution of boracic acid (5 grains to the ounce) were injected into the bladder, and the base of the penis ligatured with a piece of thin india-rubber tubing which retained the liquid perfectly; the bladder could now be felt above the pubes. No attempt was made to distend the rectum. An incision was made over the symphysis pubis and carried up in the median line towards the umbilicus for about four inches. The fascia and muscular fibres of the pyramidalis and rectus abdominis were carefully cut through to the full extent of the wound, then with the fingers and handle of scalpel the glistening surface of the bladder was gradually exposed, the thin layer of fat with the peritoneum being scraped upwards towards the top of the incision and held there out of harm's way by the fingers of an assistant. The bladder was now steadied by hooks and punctured by a sharp-pointed bistoury near the upper

portion of the skin-wound and the bistoury carried in a straight line downwards towards the pubes. The index finger of the left hand was now quickly introduced into the bladder and closely followed by that of the right, and the stone, grasped between them, was brought upwards to the wound in the bladder, which, however, was not sufficiently large to allow its extraction; the stone was therefore released and the wound lengthened towards the pubes; it was then again caught, and, after some gentle manipulation, was removed with the fingers.

The stone was of an oval shape, measuring $2\frac{1}{2}$ in. long, $2\frac{3}{16}$ in. broad, $1\frac{5}{8}$ in. thick, and weighed 5 ounces and 40 grains. On section it showed a thick external layer of phosphatic deposit with alternating concentric layers within of a harder and darker material, probably uric acid. The patient believed it had been growing for more than twenty years.

The bladder having been washed out with a weak solution of boracic acid, the wound was allowed to remain open, and a soft india-rubber catheter placed in the bladder, with the end hanging out at the pubic end of the wound, which was covered with a carbolized oil dressing and changed twice daily.

The recovery was very protracted, as eight days after the operation a large bed-sore began to form over the sacrum and was a source of great trouble. Up to this time the temperature had not risen over $101\cdot4$, but now gradually increased to $103\cdot4$. The sore was treated with lead lotion and iodoform ointment, pressure being removed as much as possible by means of an air cushion.

The catheter had to be frequently changed, as the urine contained mucus, pus and phosphatic deposit. On the 24th April, the catheter was removed from the wound and some urine passed by the urethra. On May 5th (23 days after the operation) the temperature became normal and the general condition improved. On May 22nd the abdominal wound had nearly healed, the bladder had closed over, and all the urine was passed by the urethra. The patient was, however, kept in the hospital for several weeks longer till the bed-sore had completely healed.

Some months after his discharge this patient again presented himself to seek advice about an abdominal swelling which had arisen since he left the hospital. This was found to be a ventral hernia about the size of half an orange, at the upper part of the abdominal cicatrix. He was advised to wear a band, but did not place himself under further treatment, and has not been seen since.

Case II.—**TEK LIONG**, a Chinese boy, 7 years of age, with a stone in the bladder, was put under chloroform on the 5th August 1889. A few ounces of a weak solution of boracic acid were injected into the bladder and the penis ligatured; the rectum was not distended. An incision $2\frac{1}{2}$ in. long was made from the pubes upwards, and the bladder reached in the same manner as described in Case I. It was steadied with artery forceps and opened with a

scalpel, the wound being subsequently enlarged by the fingers, and a stone with rather a rough surface, measuring $1\frac{1}{2}$ in. long, $1\frac{1}{8}$ in. wide and $\frac{1}{16}$ in. thick, and weighing 230 grains, and composed chiefly of uric acid, was removed.

A drainage tube was placed in bladder, one end being brought out of the wound, which was covered with earbolized dressing. The drainage tube was removed on the third day, as the child was by no means amenable to treatment, and the crying and struggling produced when the tube was taken out to be cleaned seemed to be doing more harm than good, as some hæmorrhage took place, blocking the tube and wound with blood-clots; these being removed, however, the urine flowed freely from the wound and gave no further trouble. The skin in the neighbourhood was kept constantly smeared with boracic acid ointment to prevent excoriation, and folded cloths, which could be easily removed, were arranged to catch the dribbling urine.

The highest temperature recorded was 102.2.

On the 5th September a little, and on the 13th September all the urine was passed by the urethra, the opening into the bladder having closed. The patient was discharged, with the wound firmly healed, on the 25th September.

Case III.—TIAU, a Chinese youth, aged 17, was admitted into the Chinese hospital suffering from stone in the bladder, and on the 10th September 1889 was placed under chloroform, and the bladder having been distended with boracic acid solution, a stone was removed by an operation similar to that performed in the two preceding cases. The bladder in this case was drained by means of a catheter in the urethra; this was, however, removed on the third day after the operation, as it was thought to produce some irritation. The temperature having risen to 103, subsequently fell to 101.2, which was the highest point reached during the future progress of the case. The calculus, which was formed of uric acid, was of a flattened oval shape $1\frac{3}{8}$ in. long, $1\frac{1}{8}$ in. wide and $\frac{1}{16}$ in. thick, and weighed 242 grains. The treatment was the same as in Case II. A small slough formed in the upper part of the wound, which separated 13 days after the operation, leaving the surface beneath healthy. Ten days after the operation a little urine was passed by the urethra; the quantity increased daily till 9th October, when all was passed by the natural channel. Patient discharged October 18th, with wound firmly healed.

Case IV.—KIS, Chinese boy, aged eight years, suffering from stone in the bladder, was operated on under chloroform on 21st September 1889. Six ounces of weak boracic solution were injected into the bladder. The rectum was not distended. The stone was, as in the three former cases, extracted above the pubes. Weighed 77 grains, measured $1\frac{3}{8}$ in. long \times $\frac{3}{4}$ in. wide \times $\frac{9}{16}$ in. thick, was composed of uric acid, showing alternate layers on section. In this case the peritoneum was brought plainly into view at the upper part of the wound, as the child strained a good deal, as if about to vomit, during the early

part of the operation, and a portion of the peritoneal sac was forced out, looking like a delicate, thin bladder. As soon as observed, it was of course kept out of danger by fingers. The bladder was steadied by a loop of fairly thick carbolized catgut being passed through the muscular wall, as neat as possible, to the upper part of the wound, and held firmly in position by an assistant. An incision was made in the bladder with a sharp-pointed bistoury and the stone, being small and elongated, was readily extracted by the tips of the two index fingers. The bladder having been washed out with boracic solution, the edges of the wound were stitched together by means of interrupted carbolized catgut sutures, about $\frac{1}{4}$ of an inch apart, through the muscular coat only; the skin wound was treated in a similar manner, and a piece of narrow india-rubber drainage tube placed between it and the bladder with one end brought out over the pubes. The patient passed water freely by the urethra the next morning, and the drainage tube was removed. The highest temperature recorded was 101·2. The bladder was not quite watertight, as during the next four days a few drops of urine passed through the wound during each act of micturition, and on the fifth day, owing to the partial absorption of the catgut sutures, which were rather thin, the lower part of the abdominal wound had opened up and the same condition, in a more limited degree, had probably extended to the bladder, as the few drops were now increased to about a drachm. The wound, which looked perfectly healthy, was strapped for the next few days with adhesive plaster, and on the 2nd October (11 days after the operation) no more urine passed by it, and the patient progressed favourably till 1st November, when he was discharged with the wound firmly healed. He was seen again four months later: no local trouble existed and the scar was perfectly sound.

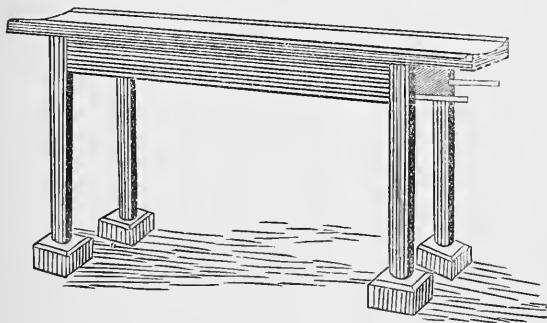
Case V.—JU, aged five years, male, presented himself at the hospital with symptoms of stone in the bladder.

On 20th May 1890, supra-pubic cystotomy was performed as described in Case IV, and two very hard stones were removed; the larger weighed 137 grains and the smaller one 77 grains, the shape in each case being somewhat flattened oval. The smaller one was marked on two surfaces with several facets. The bladder and skin wounds were both closed and a small drainage tube inserted between them, as in Case IV. The day after the operation the temperature reached 100·8, which was the highest recorded. The urine was drawn off by a catheter for a day or two and some passed through the wound. On the 25th the patient passed some urine by the urethra, and on the 28th micturated freely several times, but still a little urine escaped by the wound during each act. On the 1st June all the urine was passed by the natural channel, and on the 14th the wounds, which had been dressed with boracic acid ointment, were healed.


A NEW AND EASILY CLEANED OPERATING TABLE.

By H. W. BOONE, M.D., *Surgeon to St. Luke's Hospital, Shanghai, China.*

While on a visit home a few years ago, I tried to find an operating table, that should have no joints or crevices which could catch or hold any infectious material. Operating tables in Europe, England and America were examined by me, ranging in price from \$45 to \$150; they all were defective and very difficult to clean, and keep aseptic. I returned to China without purchasing one. In my despair I had, like the German scientist, to evolve one from my inner consciousness. Messrs. Hall & Holtz, of Shanghai, made a table for me from my drawings, and since April 1888 it has been in constant use at St. Luke's Hospital. Other surgeons have seen it, and they have ordered tables of the same pattern for their own work; it stands the trial of daily use. I wish to describe it, for the benefit of other men who may need an operating table. The idea is, Table one solid slab, not a single crevice in it, legs joined on water-tight, no acute



angles, no corner where dirt can lodge or be concealed, every part of it, including bottom of legs, rounded and polished so that it cannot hold dirt, and it can be sponged clean in a few minutes for another operation. I do away entirely with the rubber sheeting and cushions, put the patient on the bare table, except in cold weather, when I cover it with an aseptic cotton sheet folded triple to keep him from the chill of the hard surface, put on a fresh aseptic sheet for next operation, after the table has been scrubbed with soap and water, and then carbolic or perchloride solution, and so on for each operation. The table is made rather low, with a slight incline from head to foot, is curved on surface so as to cause fluids to go towards the foot, and not splash over the sides. At the foot, under the table, two rounded irons are screwed into the wood, after the auger-holes have

had white lead paint put into them, to make a water-tight fit. I have four tins made to fit the table, so as to change them when soiled,  shape of the tins. Length of the tin $2\frac{1}{2}$ ft., width $10\frac{1}{4}$ in., depth $2\frac{1}{4}$ in. This tin is laid upon the two iron supports, and it is tied on with a *fresh* piece of cord, to keep it in place, a new piece being used each time. Any catch or joint at this place would hold infection. The cord costs but little. All joints and crevices of tin should be filled up smooth and solid with solder. The table is purposely made low, in order that blocks may be put under the legs, by removing the foot-blocks, that end of the table is depressed while the head is elevated. Put back foot-blocks, and remove those at upper end of the table, and you depress the head. You can double the blocks at one end if you wish. Size of blocks, square $7\frac{1}{2}$ in., thick 4 in. These blocks to be of hard wood, without cracks, all corners and edges rounded off, polished smooth and varnished, table to be made of fine grained hard wood, without a single crack or defect in any part.

Dimensions.

Length, 6 ft. 3 in.	Depth of curve in the upper surface, $\frac{5}{8}$ in.
Width, 1 ft. 11 in.	Height at head of table ... 2 ft. $9\frac{1}{2}$ in.
Thickness of table slab, $2\frac{1}{4}$ in.	Height at foot of table ... 2 ft. $7\frac{1}{2}$ in.
Length of frame for the legs, under the table	4 ft. $9\frac{1}{2}$ in.
Width of frame	" " 1 ft. $8\frac{1}{2}$ in.
Thickness of frame	" " $1\frac{1}{2}$ in.
Circumference of legs above ...	... 1 ft.
Circumference at bottom of legs ...	... $9\frac{1}{4}$ in.
Length of iron pieces under foot of table...	7 in. $\frac{3}{4}$ -in. rod iron.

The frame is fastened underneath to the table by long and strong screws which are countersunk, and the heads filled in. In putting the table together no glue is used, but white lead paint is put between all joints before they are put together, to make them water-tight. All joints must fit perfectly. This table looks very plain, but to accomplish what is intended it *must* be of the most perfect workmanship in every part, and it should last for 40 years, as there is nothing to get out of order. On first looking at the model, it may appear too plain to be of much good, but its very simplicity is its perfection. With ordinary care it cannot get dirty. Paint it with Niugpo varnish or white paint, and the surface will show any dirt adhering to it. With Clover's periucal crutch perineal operations are readily done, and the tin at the foot of the table keeps the operator clean. To recapitulate: it is very strong; cannot get out of order; it is, and can be kept clean and aseptic with the least possible amount of trouble; dirt is easily seen on the smooth surface; combined with the tin at the foot, it drains dry without any splash while one is operating. Compared with other tables its cost is moderate—Tls. 18.

NOTES ON A CASE OF AMPUTATION OF THE LEG.

By J. A. OTTE, M.D., *Neerbosch Hospital, Amoy.*

Case II.—Entered the hospital June 10th, 1890. The patient was pale, emaciated, and so weak that he himself expected to live only a few days longer. The temperature on the evening of admission was 102·8 F. Though the foot seemed healthy, the lower part of the leg was one foul, sloughing mass. There was only a bridge of healthy tissue about one inch in width on the posterior aspect of the leg. There was osteo-myclitis of both tibia and fibula and a day or two before entering the hospital both bones had broken spontaneously. The foot was now dangling by the small bridge of healthy tissue left. The upper part of the leg appeared healthy. It was larger than the limb of the opposite side, though there was no œdema, and no sign of inflammation at that point.

The history revealed that there had been an ulcer of the lower third of the leg for three years. This had suddenly grown worse three months before the patient entered the hospital. Immediate amputation was advised, though very little hope, even of life, was held out.

As there is great difficulty here in China in getting an artificial limb to fit a stump at, or above the knee, and as there was no pain on severe pressure at the junction of the upper and middle third, it was decided to amputate below the knee instead of at the knee, as we would have done at home.

On June 15th, ether was administered and the limb rendered bloodless, after which we proceeded to dissect up the skin flaps. All the muscles of the leg were now found to have undergone fatty degeneration. Not the smallest shred of muscular tissue could be discovered. Both bones appeared on the outside to be perfectly healthy. After stripping up the periosteum, the saw was applied. The tibia was found to be diseased to the anterior surface of the medullary canal. It was now decided to reamputate at the knee-joint, but the assistant giving the ether, informed me that the patient was apparently dying. The pulse was not felt at the wrist, and the breathing was very shallow. An hypodermic injection of sp. ether was administered. After this the pulse was again felt at the wrist, though weak, and the breathing improved slightly. It was therefore decided to take the chances and complete the operation already begun. The main arteries were now to be tied. Catgut was used, but on seizing the vessel with an ordinary artery forceps the least tension caused it to tear. The vessels, as well as the muscle, had undergone fatty degeneration. Torsion forceps were therefore used to catch up the arteries. On applying a ligature, and using but little force, the artery was cut through. The vessel was again seized and a new ligature applied very loosely. This was fortified by a second ligature. In this way the

artery was closed without rupture of the internal coat. All the vessels were tied after this manner. In order to get rid of as much diseased bone as possible, another half inch was now sawn from the tibia, and then the medullary cavity was thoroughly scraped with a Volkman's sharp spoon, as high up as possible. The tourniquet was now removed, the oozing stopped, and the wound sutured. Three drainage tubes were introduced, one at each angle of the wound, and one in the centre, extending up into the medullary canal of the tibia as high as it would go.

The patient recovered from the shock very soon. At 9 p.m., the first day after the operation, the temperature was 102.4 F. Antipyrine was administered, and he was put on iron, quinine, and Liebig's Extract. From this time his progress was very good. After the second day, the temperature reached 100 F. several times, but was kept from going higher by antipyrine. The drainage tubes were gradually shortened, and on July 29th the man was dismissed with a very good stump, and looking robust.

A REVISED PEN TS'AO (本草).

(*Pium Desiderium*.)

By The Rev. ERNST FABER, Dr. Theol.

As the *Pen Ts'ao* (see *Journal of the North-China Branch of the Royal Asiatic Society*, Vol. xvi, pp. 54, ff.) is one of the most popular works among the Chinese, and cannot possibly be supplanted by the best foreign publication for some generations to come, it appears the wisest plan, to take this work as a basis for introducing Western scientific research bearing on the subjects treated in the work.

The contents of the *Pen Ts'ao* may be summarised as Pathology, Materia Medica and Prescriptions. As the revised edition ought to be kept strictly popular, the description of diseases should be restricted to the prominent symptoms, recognizable by any educated Chinaman without scientific apparatus. A popular account of the human body in all its parts and functions in a healthy state, should be given as an introduction, and accompanied with clear and instructive illustrations.

The Chinese Materia Medica is composed of substances from the mineral, the vegetable, and the animal kingdoms. As the identification of some of these important substances—very generally and largely used in China and the neighbouring countries—is not yet satisfactory, it is necessary to begin patiently from

the beginning. A Medical Museum, however, having already been started at Shanghai, the work of determination could now be carried on more satisfactorily than before, when such efforts were more or less sporadic. The co-operation of every Foreign Medical practitioner is required to achieve best results. As every province of China has its peculiar productions, names and usages, we can never gain satisfactory results from one or a few localities along the sea-coast of China. In journeying, we may collect this and that, but nothing can be done thoroughly. Physicians residing in the interior enjoy, on the other hand, great advantages. Their acquaintance with the people, enables them to get almost anything they may intelligibly ask for regarding the healing and welfare of the Chinese. Thus one essential point for reliable research may be gained, *i.e.*, that every substance used as a medicine by the Chinese is collected at the place of its natural occurrence. This is important with regard to minerals and plants, but it applies even to animals, especially of the smaller kinds. Of each drug, there should be mentioned the place, and the conditions of its occurrence. The different names used in books* and among the people are also required. Care has, moreover, to be taken to find out what name the substance bears in its natural condition, and what name in its prepared state for commerce. The process employed to prepare a drug should be distinctly stated. Specimens of the drugs taken from the mineral kingdom can easily be obtained; they are at once ready for the museum. Botanical specimens require some extra work. Of smaller plants the whole plant should be taken, in flowers as well as fruit. Five good specimens are needed of each species, as some may have to be sent home for determination. If the plant is too large, a branch may suffice, and some lower leaves if they differ, but the root should be dried separately if it is used in any way among the Chinese. Every plant must be well pressed and dried between paper. For this purpose common Chinese paper, especially the stiffer kind, is very suitable. The paper has to be changed every day for three or four days, and then at longer periods, till the plant is perfectly dry. If left too long in damp paper some plants will ferment, turn black and fall to pieces. The paper can be used over and over again after it has been well dried. The size of the paper is 16 inches by 10½ inches at the best herbariums. Plants of larger size can be folded. Care should be taken to select good specimens.

As food is even more important than medicine, the collections might comprise every plant used as such in daily life or in times of famine. If the space of the Museum permits, it would be advisable to collect specimens of every object of natural history, native to China, that is in any way utilized by the Chinese. We need not enter here into the methods of preserving animals, as medical men are well enough acquainted therewith. All identifications would be published in

* I call special attention to the geographical works on each Province, Prefecture and District.

this periodical, with the name of the collector, and any information sent by him. Any reference to the specimens kept in the museum could be made easy enough by a catalogue. This museum could in this way, become the indispensable basis for all research in the line of the *Pen Ts'ao* within a few years. •

After the names have been determined, the medicinal properties of each drug can be given according to the best Chinese authorities, but corrected and supplemented by Western science. Good drawings are needed wherever different names might confuse the Chinese reader. The foreign scientific name should also be added.

The last section of the Revised *Pen Ts'ao* might contain a selection of prescriptions. The Chinese are accustomed to help themselves in this way. It might also assist native practitioners. We have to remember that foreign hospitals are still comparatively few in China. Many patients living at a great distance could not possibly make a journey of several days or weeks, to get a simple remedy which they need immediately and could buy next door. Let us then be merciful as our Father in Heaven is merciful! Hua.



The China Medical Missionary Journal.

VOL. IV.

DECEMBER 1890.

No. 4.

This Number completes the Fourth Volume of the Journal, and it is with pleasure we now view the brighter prospect under which the Fifth may be commenced. It is, we deem, not inapt, at a time like this, to touch upon the make-up of a Journal such as ours, and premise by stating that, holding the position we may assume it does, as the exponent of the Medical Missionary Association of China, with its inclusive full membership of upwards of one hundred, and of honorary and corresponding members of upwards of half that number, all of whom are necessarily interested in our undertaking, it does seem unfortunate that at times we are at a loss, from sheer lack of material, to suitably arrange our issues. Though representing matters as they have been, we repeat we have now reason to believe this statement of fact is one only to be referred to, and not haply apply to the future. By way of obviating this possible recurrence, may we suggest to those who do not wish to undertake elaborated articles, that they should write simple, chatty letters descriptive of their work, or even letters of their personal welfare generally, thus making the Journal what it aims to be—a bond of union, a tangible expression of our common entity and sympathy, the one with the other. It must occur to us, when glancing at the photograph facing our title-page, the many advantages we now enjoy compared with the times in which Dr. LOCKHART lived and labored in China. Dr. LOCKHART himself, though some years later, recalls the era of Dr. LIVINGSTONE, who in 1820 “was the first person who systematically brought medical aid within the reach of the Chinese.” Then following on in goodly order, but seven years later, GUTZLAFF, DAVID LIVINGSTONE’s prototype, PARKER and BALL, 1834 and 1838, and then, though in broken sequence, comes KERR of Canton, who yet as it were connects us with that past, and evidences the warm interest in the Association and Journal it is our earnest aim to perpetuate. With these few explanatory remarks to our Brethren, we send our Xmas Greetings, and kindly wishes that 1891 may be a very happy and successful New Year—one it may be of “Toiling, rejoicing, sorrowing, as onward through life we go,” yet at the close, if we are spared to reach it, may we all feel something *more* has been attempted, something *more* done.

NOTICES OF BOOKS.

INTRODUCTION.

ANNUAL OF THE UNIVERSAL MEDICAL SCIENCES.

Edited by CHARLES E. SAJOUS, M.D., and Seventy Associate Editors.

The issue for the year 1890, lately received, shows the same wide research with careful and judicious selection, as that which distinguished the former editions. The value of these publications is much enhanced by the thoughtful and discriminating comments of the learned Editors. Every department pertaining to the practice of Medicine and Surgery is noticed, and the latest information on each subject is incorporated in these pages. Our time and the space at our disposal only enable us to notice the first three volumes in this article. We present such matter from their pages as may be of special interest to us here in China, and hope that they will give some idea of the value of the work itself.

Tuberculosis : Invasion by Inheritance.—As a result of the investigations of CORNET, the question of inheritance sinks in value more and more; so that, while it may be admitted in exceptional cases of internal tuberculosis, it may be probably rejected altogether in the case of phthisis pulmonum.

Invasion by the Alimentary Canal. Food and Drink.—A careful analysis of 127 cases of tuberculosis in children by WOODHEAD showed that the disease selects particular organs by preference. Intestinal canal involved in 43 of 127 cases, the mesenteric glands were involved in 100, of which 62 occurred between the ages of 1 and 5½. Most common cause of primary localization of tuberculosis in the mesenteric glands, was thought to be the use of milk containing the tubercle bacillus.

Invasion of the Lungs. Sputum.—The work of the year has established almost to universal conviction that tuberculosis pulmonum is caused exclusively by the inhalation of dried sputum.

Treatment of Aortic Aneurism.—SENATOR considered iodide of potash curative.

Suppurative Hepatitis. Etiology.—YOUNGE. Dysenteric abscesses are the result of purulent phlebitis excited by the lodgement of septic thrombi. They are small, usually numerous, and are connected with the branches of the venæ Portæ. They are always fatal, and no operative interference is justifiable. Tropical abscesses are large, usually single, and occur in connection with the

branches of the hepatic artery. They are due to the breaking-down of a comparatively healthy inflammatory effusion, and an early operation is necessary and is frequently successful.

Dysentery.—H. Z. JENCKES quotes EWART as stating that the mortality from Dysentery in India has been reduced from 80 to 20 per 1,000 by the use of ipecacuanha, given in from 20 grains to a drachm (1·3 to 4 grammes) dose every 12 hours. Alum-water enemata, $\frac{1}{2}$ ounce of alum to $\frac{1}{2}$ pint of water, is strongly recommended by HEPBURN in the treatment of Dysentery.

Constipation.—The method of treatment by glycerine enemata, has received universal attention, and thus far only universal commendation.

Intestinal Obstruction.—TREVES states that over 2,000 persons die every year, in England, from various forms of intestinal obstruction, exclusive of hernias. NOTHUAGEL adopts the following plan: Increase peristalsis by enema; fight collapse with opium; order complete abstinence from food; give no purgatives. Uses lavage of the stomach, observes no visible results, but considers it a palliative of value. FITZ states that the diagnosis must be made in the first two days, the capacity of the colon being ascertained before tympany develops. Diagnosis should be made by exclusion, seat by injection, variety by seat, age, and antecedents. Treatment should be surgical on the third day.

Treatment of Infantile Diarrhœa.—Opiates are falling more and more into disuse, particularly in cases of "Summer Diarrhœa;" vegetable astringents have been found by a large number entirely worthless. Irrigation of the colon has come to be quite extensively practised. Evacuants are used extensively, calomel being the favourite, although castor-oil is extensively used in the preliminary stages. In the later stages the majority of writers have directed their attention to the use of antiseptics of one form or another. On the contrary, JACOBI states that opium is an invaluable means in the treatment of all diarrhœal diseases. Prefers Dover's Powder, $\frac{1}{10}$ to $\frac{1}{2}$ grain ample for the effect required in children; given to control hypersecretion, hyperperistalsis and hyperæsthesia of bowel. Time to give opium has come, when the odor of the evacuations begins to assume normal character. Finds no contra-indication in the cases of follicular enteritis which last for weeks, even when discharges continue foul.

Typhoid Fever.—VON ZIEMSSON has compared the morbidity with the mortality of enteric fever in Munich from 1866 to 1887, as a supplement to VON PETTENKOFER's inquiry into the reduction of mortality brought about by improved drainage. Before 1881 the yearly average of enteric fever morbidity in hospitals was 594; for seven years subsequently it had been only 104, notwithstanding a great increase in population. Before the new system of drainage was introduced, the hospital morbidity was 3·32 per 1,000 of population; afterwards only 0·42 per 1,000. The mortality from enteric fever in the whole city, from 1866 to 1880, amounted to 3,118, with a yearly average of 208; but from 1881 to 1888

there were only 324 deaths from this disease—a yearly average of only 40. The mortality per 1,000 of population, for the former period, was 1.15; for the latter, 0.16. After all circumstances are fully considered, this great diminution in both morbidity and mortality is shown to be due to the improved drainage. In concluding his contribution, Von ZIEMSSON considers the results already gained as regards typhoid fever as only part of the fruits, of the great outlay that has been made. Not only is the nutrient soil taken away from typhoid fever, but the conditions for the epidemic development of cholera are removed with it, and that it will take decennials to show all that has, from a hygienic point of view, been gained.

Beri Beri.—The most valuable article on this subject during the past year is that by PEKELHARING and TRINKLER. They say : 1.—Beri Beri has no dependence on anæmia. 2.—There exists a well-developed and recognizable initial stage for all forms of the malady. 3.—The unity of the various clinical and frequently widely-differing forms of Beri Beri, is confirmed by a close investigation into the electrical reaction of nerve and muscle-tissue. 4.—The majority of the symptoms are dependent on affections of nerve and muscle-tissue, and these are due to a definite nerve-lesion degeneration. 5.—In the blood of Beri Beri patients, bacilli and micrococci are to be found. 6.—Pure cultures of such micrococci give a nerve deprivation of like nature to that found in Beri Beri when injected into rabbits and dogs. 7.—The inhalation of air impregnated with such culture can originate a nerve degeneration in rabbits. 8.—Beri Beri must in all probability be regarded as a contagious disease, induced by the action of a micro-organism. 9.—The infecting micrococcus can also exist apart from contact with the human being. 10.—Direct transmission from one to another person rarely occurs; infection through wearing-apparel is more common. 11.—The infecting material finds its way into the body principally through the respiratory organs. 12.—The spread of the malady can be interrupted by disinfection, or, in a person attacked, by removal; when the symptoms are once well-developed, nothing but nature can effect a cure.

Headache.—A practical point of importance in the use of Antipyrine is the dosage. Often the best results are obtained by small doses frequently repeated.

Chorea.—COLBURN reports 54 cases of chorea, in 39 of which he found, on examination of eyes, errors of refraction. In 16 of the cases, school-work was evidently a secondary cause of the first manifestation of the trouble, and a return to any work that required close application of the eyes, would greatly increase the severity of the spasms.

Transfusion.—Transfusion was the subject selected by WILLIAM HUNTER, for a course of three lectures before the Royal College of Surgeons. His conclusions, which are based upon experiment, are that, for practical purposes, “all the advantages to be gained by transfusion may be equally well, and more readily

obtained by infusion of a neutral saline, such as $\frac{3}{4}$ per cent solution of common salt (about 1 drachm—4 grammes—to the pint—500 cubic centimetres). For the operation of transfusing a saline solution, the oily instruments needed are a glass cannula, 3 feet of small, clean tubing, and a funnel, the fluid being allowed to flow into the vein by gravity. It is also undeniable, that *subcutaneous* transfusion of a saline solution, is a most valuable therapeutic resource in the collapse which follows a large loss of blood. The intra-venous transfusion of blood is practically abandoned, and rightly so.

Obstetrics.—Forceps.—At the Royal Frauen Klinik in Dresden, from 1883 to 1888, out of 7,322 labors 206 (2·8 per cent) were terminated by the forceps, 187 typical forceps to the head low down in the pelvic cavity, 19 atypical forceps to the head at the inlet. Out of a mortality of 3·4 per cent none perished on account of the operation, 57·7 per cent suffered considerable injury of the soft parts, 68 per cent were without fever, 9·7 per cent had slight fever, 21·8 per cent had high fever, 3·4 per cent had demonstrable parametritis. Out of the 206 children 17 per cent died, yet only 12 per cent as the result of the forceps. Of the 19 high-forceps operations no mother perished. Of the children 21 per cent died, several suffered severe injury. It is necessary to bear in mind that the forceps is the bloodiest obstetric operation, in consequence of the lacerations caused by the instrument. The high-forceps operation should be avoided as far as possible; it should only be practised by the expert hand after an accurate estimate of all the dangers involved. Even in cases of "easy" forceps, significant tears of the vagina and cervix may occur without injury to the perineum; these tears may even cause fatal hæmorrhage. It is necessary to limit the indications for this operation. In severe hæmorrhage after the forceps, that is not stopped by the delivery of the afterbirth and by the customary means, it is necessary to remember the possibility of a vaginal or cervical tear, to seek out the tear and close it by suture. In these cases NÆGLE's forceps was used, and the axis-traction forceps was not used at all.

Infant Feeding.—ENHERICH prefers for infants sterilized cow's-milk; to each four ounces a teaspoonful of malt extract is added; malt is less liable to cause fermentation than milk or cane-sugar. This is diluted with sterilized water in progressively diminishing quantities; he supplies fat by adding to the water a preparation of almond-meal, 1 teaspoonful to 4 oz. of water. [In China, or where the almond-meal cannot be obtained, why not substitute a small amount of pure cod-liver oil daily]. He believes that the usual methods result in the ingestion of much more food than is assimilated.

Acute Intestinal Obstruction.—ANNANDALE says it must be considered that, unless an acute intussusception is relieved in the early stages, it is, especially in young children, a very fatal disease. Use of enemata or insufflation can only be successful in its early stages. In the latter stages this plan is attended with

considerable risk. Much emphasis was laid upon the importance of early operation in these cases.

Fistula in Ano.—The article by KELSEY is too long and full for quotation, but is one of exceeding value.

P. J. FREYER, Bengal Medical Service, to April 1889, latest statistics, 100 litholapaxies and 32 lithotomies. A number of children among the litholapaxies. Largest stone from a child, a hard one weighing 765 grains; from child 9 years old, in 2 hours and 5 minutes. One weighing three grains in child of 18 months in eight minutes. One death in one hundred litholapaxies (a man of 60), 2 deaths out of 32 lithotomies. The leading authorities claim litholapaxy as the operation of choice in all ordinary cases of stone in the adult at any age. Very large stones and selected cases, they agree, are better dealt with by the high operation; when cutting is done in the perineum they advocate the lateral operation for children, the median for the adult. CABOT makes a plea for litholapaxy in children—an operation which is rapidly gaining favor.

Supra-Pubic Cystotomy.—WATSON, 100 cases analysed, 35 per cent healed by first intention. When harm arises it is due to not having left abdominal wound open. His conclusions are, suture should be employed when bladder-walls are healthy. Suture should be avoided when the bladder-walls are much thickened, when there is much liability to hæmorrhage within the bladder, or when there is foul cystitis, and the abdominal wound should be left open for the greater portion of its extent. We hope at a later date to give some further notice of the two remaining volumes.

H. W. B.

LEPROSY IN HONGKONG.

By JAMES CANTLIE, M.A., M.B., F.R.C.S.

This interesting monograph begins with a statement of the difficulty of obtaining evidence of the existence of Leprosy previous to the time of the present investigation, goes on to tell how the Government of the Colony deals with lepers. He then advocates classification of the lepers in Hongkong into (1) Hypertrophic Leprosy, (2) Anæstho-hypertrophic Leprosy, and further regional classification only; regards anæsthesia as an invariable concomitant of the disease. "Anæsthesia is present in all cases as an initial symptom, or subsequently supervenes upon leprous hypertrophies."

Page 10.—"The period of incubation is quite unascertainable." "I do not believe in the heredity of leprosy." Leprosy is endemic, never epidemic. Interesting particulars are given as to the birthplace of lepers met with in

Hongkong, sex, age, occupation. Has never seen or heard of any European being attacked in China. *Contagious Nature of Leprosy*.—"A contact of years' standing is the usual finding; it was even 9 years in Father DAMIEN's case." "There seems little doubt that leprosy is inoculable." *Vaccination as affecting Leprosy*.—"By arm-to-arm vaccination of infants up to three months, I do not consider it possible to communicate leprosy."

The Treatment of Leprosy.

The remarks on treatment are interesting enough to be quoted in full.

"The treatment of leprosy resolves itself into improving the general health by tonics and purity of hygienic surroundings. Further, a few remedies may be used, but altogether empirically, to allay symptoms.

"When a leper first presents himself or herself for treatment, any medicine which improves the general health will cause an improvement, not only in the patient's spirits, but also in the leprosy patches. Cod-liver oil, iron, bitter tonics, some of the acids, arsenic, &c., &c. may, and usually do, cause improvement, so that frequently the patient is deluded into the belief of the possibility of an ultimate cure.

"Without entering into a lengthy disquisition on treatment, I will merely state what I have done for lepers and the result:—

"I.—General treatment consists in administering some of the tonics mentioned, but most useful of all I found to be improvement in the quality and quantity of the food. The poor leper is sent away from every threshold to find sustenance as best he can. The pavement is frequently his bed and refuse his food. By supplying good food to such, a marked improvement takes place, without medicine.

"II.—In addition to general treatment, I have used as an empiric remedy, chaoulmoogra oil, in the form of pills, in increasing doses from 5 to 15 drops, and continued its administration for an indefinite time.

"In six cases the oil seemed to have no effect in staying the progress of the disease.

"In thirteen cases the patients showed more or less improvement.

"In one case, a case of mixed leprosy, anaesthesia of the lower limbs, and patches of hypertrophy on the face—the usual Malar bumps—marked improvement. The treatment has been kept up for fifteen months. The patient has lost all facial disfigurement, sensation has returned in the face, and the only marks remaining are a few patches of anaesthesia about the right leg and the outside of both thighs. In these spots the patient can feel touch, but not pain, *i.e.*, he can feel a pin touch him, but he can push it in as far as its head without actual pain.

"This is the case that has done best, and the length of time since first seen seems hopeful.

"Increasing doses is the only point to notice in the treatment, 15 drops being the maximum as yet.

"III.—Of external applications, the only one I have employed lately, is the ointment recently recommended by Una:—

R. Chrysarobin	...	...	...	5 per cent.
Salicylic acid	...	...	...	2 "
Ichthyol...	...	...	...	5 "

"The use of the ichthyol, is to combat the action of salicylic acid in laying bare the skin; this is applied to the arms, legs and trunk. With this ointment, I have seen marked improvement in the twelve cases tried. Even after one week's application a decided improvement takes place. To all appearance, patients after a short course, lose symptoms of leprosy.

"When the application is for the face the ointment is weakened, and pyrogallol introduced instead of chrysarobin.

"The quantities are as follows:

R. Pyrogallol	...	...	...	6 parts.
Salicylic acid	...	...	...	2 "
Ichthyol	...	...	...	5 "
Lard	...	...	...	To 100 "

"Certainly the milder ointment was non-irritating to the tender skin of the face, and the beneficial effect was most marked. More than one patient, who had come to Hongkong for treatment, took their departure in 14 days, pronouncing themselves cured.

"According to Una's advice, I administered internally 10 drops of dilute hydrochloric acid three times a day, to counteract the deleterious effects of pyrogallol on the blood. In the three cases I did so, the ointment had been used for some time alone, but after taking the acid, improvement was more marked.

"In many cases the patients presented themselves with a leonine expression, anæsthetic in patches, and large purplish patches here and there over the face and limbs. The limbs were usually anæsthetic to a marked extent, and the patients in many instances were deprived of the privilege of earning a livelihood owing to their disfigurement.

"After a week's course of Una's ointment, a marked improvement in all cases took place, and frequently it happened that in six weeks' time the facial deformity had all but gone and the leper was well enough to be admitted by his fellows to earn his living.

"The extent of improvement is that:—

1. The leonine expression is ameliorated, or, as in three cases, wholly disappears.

2. Sensation returns to the face and limbs, completely or in part.
3. Patients unable to obtain employment before are free to obtain a livelihood.

"The treatment recommended is upheld merely as empiric and ameliorative. No cure is advocated or claimed. But even amelioration of symptoms is something, if it can be shown that by amelioration, life is made more pleasant; and, if in addition, life is prolonged, then modern medicine must claim a triumph."

Segregation of Lepers.

"In all leper countries and from early times segregation is, and has been, practised with more or less rigor. In spite however of segregation, leprosy maintains its course in these countries, and no amount of leper villages or leper asylums seem capable of eradicating the disease."

"What then is the good of segregation if it does not prevent contagion, may well be asked. In the first place, it provides a home for the leper outcast; this is surely of itself a great humanitarian work. Leprosy does not cause a tithe of the misery in the world created by syphilis, yet we expel the leper who has got a disease through no fault of his own, but we shelter the syphilitic. Therefore, on no other ground but on those of simple benefit of the lepers alone, it is incumbent to institute leper homes or asylums."

"I.—A leper retreat must be provided for British subjects, be they Chinese or Foreigners."

Appended to the paper are the histories of 10 cases, with diagrams which show the location and the extent of the parts affected with leprosy. They are taken as typical cases out of 62 cases of leprosy observed.

Under the heading of treatment no mention is made of nerve-stretching as a means of affording relief. BEAVEN RAKE performed 100 operations of nerve-stretching, twelve in cases of *lepra tuberosa*, sixty-four in *lepra anæsthesia*, and twenty-four in which the two varieties occurred simultaneously. Results were as follows: Improvement, 47; no improvement, 49; doubtful, 4. MITRA affirms that although evident improvement followed in a few cases, the majority of cases did not permanently benefit by the operation.

By the timely publication of this monograph, Mr. CANTLIE has placed the Medical Profession of China under an obligation. His observations are interesting and suggestive, while at the same time they go to show two things,—(1) that China is a splendid field for the investigation of the disease, (2) that we have much to learn about it. His suggestions as to treatment are thoroughly practical and sensible, and offer quite as good a chance of cure as any plan we know of.

H. W. B.

SEA SICKNESS:

PRACTICAL PRECEPTS TO OCEAN TRAVELLERS.

A Prize Work.

By HERMAN PARTSCH, M.D.

Boston:—J. G. CUPPLES Co., Publishers, 94, Boylston Str.

Dr. PARTSCH, whom we know to be a well-read and scientific man, here produces a carefully-elaborated and thought-out treatise on Sea Sickness, and had but the deductions therefrom, evidenced some practical outcome as to treatment, a matter in which we are chiefly concerned, right gladly would we have welcomed it, but with some regret we give an adverse opinion in this respect, for in a lengthened voyage we had every opportunity of testing the effects of the treatment herein advocated, and feel assured it would have been very gratifying, had but the passengers on that occasion realized, that some 90 % of their sufferings were in reality relieved, inasmuch as Dr. PARTSCH, a martyr, by-the-way, himself to sea sickness, undertakes to “easily reduce them to a minimum of $\frac{1}{10}$ of the individual share” be that presumably more or less, we ourselves have generally found it more. The line of treatment indicated in this work, beyond some few accepted principles, is humorously fallacious; humorously, because the author has such a firm conception of his heaven-sent mission, notwithstanding the panoramic hint on board ship to the contrary.

Having had some considerable experience at sea, we refute, solely on practical grounds, the teaching of this little work, and for the benefit of our readers substitute, and thoroughly endorse the general principles of treatment sketched out in Mr. KIRBY's *Pharmacopæia of Selected Remedies*:—“Recumbent position, *“keeping the head low.* No specific for susceptible persons. Preventive:—“Fresh air, deck berth, recumbent position, warmth to be well maintained; hot “bottles to feet, etc. For faintness:—Brandy, Iced Champagne, *Ammonia*, a few doses of Chloral, 15 to 25 grains most successful. Opium for short passages, 1 or 2 grains. *Creosote or chloroform in one-drop doses*, *Nitrate Amyl* inhaled from a handkerchief, [a dose or two of blue pill or Podophyllin and Colocynth should be taken a day or two before embarking]. In extreme cases the patient should be slung in a hammock.

P. M.

THE CHINESE SCIENTIFIC AND INDUSTRIAL MAGAZINE.

Vol. V, No. III.

JAMES FISKE concludes his "Cosmic Philosophy" with these words:—
 "The long and mistaken warfare between Science and Religion will be exchanged for an intelligent and enduring alliance. The two Knights of the fable finally throw down their weapons on discovering that the causes for which they have so long been waging battle, are in reality one and the same eternal cause,—the cause of truth, of goodness, and of beauty; the glory of God, and the relief of man's estate."

We believe these words are profoundly true, that true science and true religion are but the obverse sides of the one shield, and so hail with joy, every attempt made towards the education of the Chinese nation in the principles of science.

This Quarterly Magazine, edited by Mr. FRYER, it is needless to say, is one of the best attempts in that direction that could possibly be made. The present number contains many interesting and well-written articles, giving much instruction in Physics, Mechanics, Hygiene, Entomology, etc. The illustrations are admirable, and the articles clear and concise.

The labor of editing such a magazine cannot be slight, and we think all honor is due to him who has conceived the plan, and who has taken so much pains in its completion.

As we look over the articles, it is with a feeling of sorrow that we read the brief notice of the proposed plans, and lectures of the recently-arrived Lecturer for the Polytechnic Institute—Mr. BURTON. Certainly a life of great usefulness lay before him, and his sudden removal by death is a great loss, not only to the Institute, but to the cause of science in China.

The articles "Planting Trees to Remedy Disasters from Floods," "How to Construct a Dynamo," and "Comets," by native authors, show very clearly that there must already be a large class in China, to whom the discussion of scientific subjects is acceptable and interesting, and undoubtedly one the great effects of this excellent Scientific Quarterly, will be to make that class still larger.

F. L. H. P.

HOSPITAL REPORTS.

Dr. LYALL'S report for 1889 from Swatow and Ch'ao-Chow-Fu is especially interesting from an evangelistic point of view, though the amount of *practical work* done staggers one's faith.

We give below statistics and remarks.

Number of Individual Patients.

In-patients	...	...	2,679
Out-patients	...	...	3,151
		Total	5,830
Daily average number of in-patients	...	...	182
Average attendance of out-patients on Dispensary	...	...	53
days	...	...	...
Number of Operations	...	...	1,129

Patients have come from 1,780 different towns and villages. This fact alone reveals to some extent the character of the work we have to do, and it also shows the value of the Hospital as an evangelistic agency.

"The question of the spread of leprosy has been exciting unusual popular interest of late in some European countries. This disease is very common here, and it is the general opinion among intelligent natives that it is becoming more prevalent. More than 250 cases applied for treatment." Of surgical operations there were on the eye alone 601. On the body generally 528. Of eighteen cases of iridectomy only one was a failure, two had a little vision, while in all the others good and useful sight resulted.

Dr. LYALL reports one case of death under Chloroform, a boy aged fifteen; another case had a somewhat unpleasant bearing upon the same. "The patient was much debilitated from long-standing necrosis of femur. The operation was not specially severe, but it was followed by a pretty severe attack of chloroform sickness. On the evening of the 2nd day, on sitting up to take some food he was suddenly attacked with dyspnoea and died in

about an hour. A typical case of traumatic tetanus was successfully treated with large doses of opium. On the third day of the disease the patient swallowed, within a few hours, the whole of a mixture containing six drams of Tinct. Opii. This dose effectually restrained the tetanic spasms for 30 hours or so. When the spasms returned I gave him four drams more in two doses. Afterwards he did not require particularly large doses."

From Ch'ao-Chow-Fu the report gives the number of patients treated as 11,011 with 533 operations. Good results are reported from the use of electricity in cases of Trichiasis where a major operation was not required or desirable. A couple of 1½ pt. Bunsen cells were used and two sewing needles, the positive being kept nearly stationary, and the negative used to loosen the hairs.

"In certain localities *Anæmia* is common among the agriculturists. Bland's pills are an almost never failing remedy. Iron in this form is well tolerated. The Perchloride and Sulphate even in small doses are liable to cause abdominal pain and diarrhoea among the Hoklos of the plains."

Of the evangelistic work Dr. LYALL thus speaks in regard to the Hospital:—

"Of the native helpers, special mention might well be made of the two senior hospital assistants. Between them they take the Gospels in course, and as the larger number of the services devolves upon them, they are able in the course of a few months, to give the patients a connected account of our Lord's life and work. When it is remembered that upon these men rests necessarily much of the routine work of this large hospital, it will readily be admitted that they might well be excused from bearing so large a share in the religious services. Yet they rarely seek to excuse themselves

from this part of their work, but do it with much earnestness and zeal, seeming to feel real joy in striving to show their heathen countrymen the better way." Mention is also made of visits of native Christian women to the wards, of reading class and oral instruction in such books as the *Peep of Day*. One is not surprised that the "Inquirer's class" has numbered 110.

"Of these about 20 have applied before. They had first heard the Gospel at the hospital, had entered their names as applicants, had returned to their homes, and after one year or more, have again come to the hospital for treatment and again given in their names as applicants for baptism. Surely we may conclude that such are truly in earnest. They have confessed their faith to their heathen relatives and neighbours, they have counted the cost and are prepared to take the consequences. It is an interesting fact that many of those who apply have not done so until on a second, and sometimes even a third visit to the hospital.

From Hangechow comes a pleasantly written report from Dr. DUNCAN MAIN, now resting from his labors in the home-land. We cull from it a few facts of interest. "During the year," he says, "we endeavoured not to forget that the object of the Mission is to bring the diseases of the soul into contact with the Great Physician that they may be healed. Christ went about doing good, preaching the Gospel and healing the sick, and always subordinating his healing power as regards physical diseases, to the great end for which He laid down His life, the salvation of all men."

"The sale of anti-opium medicine is very extensively carried on in this region. It is a dangerous business, and I am sorry to say that Native Christians sometimes dabble in it, but not, I fear, without injury to their spiritual life. Our experience is, that this work does anything but recommend Christianity, and ought to be discouraged on every side. The cases are very exceptional where

an opium-smoker can be trusted with morphia pills to cure himself of the opium habit. The pills are very convenient, and, as a rule, are bought not to cure, but to take as a substitute for the pipe by those who find it inconvenient to smoke during business hours."

"A great amount of good is done through the Dispensary, but it is much less satisfactory than in-door work, from the extreme difficulty of securing regular attendance, and getting the patients to go through a proper course of treatment; there is also the difficulty of getting them to take the medicine according to our instructions; sometimes a patient will throw away the medicine as useless, simply because the *first* dose did not touch the tender part; on the other hand a patient who feels much better after the first tablespoonful, will reason with himself that the whole is better than a part and so empty the bottle at one draught in order to hasten the cure; there is the difficulty too of taking native medicine along with the foreign, with the idea that *two halves make one whole*."

"Much of our time was taken up with the Medical Class and we are glad to report that the 31st December ended a five years' course of instruction, with considerable satisfaction not only to the instructed, but also to the instructor."

"The great value of Medical Mission work in China can scarcely be overrated and we have every reason to thank God, and go forward knowing that our work is not in vain in the Lord. We cannot in a work like ours tabulate spiritual results like so many packages of goods, but we can say that Christ has been preached and souls have been saved, and although the number is not a large one it is sufficient to stimulate and encourage us."

Statistics.

Out-patients (registered only			
on first visit)	...	...Male,	5,894
		Femal,	2,114
			8,008

In-patients	...	...	...Male,	381
			'Female,	77
				<hr/> 458

Number of visits paid by Out-patients
to the Dispensary 22,814

We select from the report one case as of interest from its rarity.

"*Subclavian Murmur*.—This rare affection, which WEIL only met with six times in 600 cases and GUTTMANN only three times in several years, was met with in a young adult aged 16 suffering from acute pulmonary disease of six months' duration, with marked consolidation of the right apex, and slight consolidation of the left apex.

"The Murmur, which was clearly demarcated from the heart sounds, was heard with greatest intensity in the right sub-clavicular fossa at a spot exactly corresponding with the course of the subclavian below the clavicle. It was systolic in rhythm, loud, somewhat harsh, and blowing in character, and heard with the utmost ease and distinctness on the lightest pressure with the stethoscope, and it was absent on the left side. With regard to the heart, there was marked accentuation of the pulmonary sound, with a palpable and visible impulse over the 2nd left interspace. The area of cardiac dulness was not increased. The apex beat was not displaced, and cardiac Murmur was to be heard,—but the heart sounds were widely propagated over the pulmonary area.

"After a month's treatment, patient left us not materially improved."

The medical work of the American Board in Foochow is presented in a report for three centres of work the Foochow Medical Missionary Hospital, under the care of Dr. H. N. KINNEAR, the Shaowu Medical Missionary work, with Dr. WHITNEY as chief, and the Hospital for Women and Children, in Foochow, under the management of Dr. KATE C. WOODHULL. Dr. KINNEAR

reports good progress in his work, though he is comparatively a new-comer. During the year 1889 there were 9,772 patients including Hospital and Dispensary. Dr. WHITNEY has again taken up work in Shaowu, where he labored previously in the years 1877-1879. He says:—

"During our first sojourn in this field we gained not a few native friends and on our return the number had increased and they were all glad to welcome us back again.

"Those willing to use foreign medicines are largely on the increase, and though they still fear the knife, through the influence of minor surgery their fears are being allayed, and they are gradually approaching the day when major surgery can be undertaken.

"We cannot have a regular time for dispensing, and then go to some other work, since the patients come from near and far, and at all hours of the day. So the doors are kept open every day except Sundays, and some one in constant waiting. On the Sabbath the doors are closed and we attend only to very urgent cases where great suffering or life are involved. A small charge is made for all medicines. When we furnish vials a charge of 30 cash, or three cents is made."

Dr. WOODHULL, reports:—

The event of greatest importance during the past year has been the completion and occupation of the new Hospital and Dispensary. This has been fully appreciated by all concerned in the work. Even the patients seemed pleased with the clean new quarters, although they have no idea of keeping them so."

She also reports a steadily increasing work. An interesting case is mentioned, "that of a woman with an immense tumor growing from nearly the whole length of thigh and leg, and so heavy it was impossible for her to walk. No operation was attempted on account of the great size of the growth."

ANNUAL REPORT OF THE MEDICAL DEPARTMENT OF ST. JOHN'S COLLEGE.

For the year ending 30th June 1890.

Under the charge of Dr. MATHEWS,
Resident Physician.

The critic has so many trying tasks to perform, so many dull works to read, and his duty so often leads him to wield the lash, that it is with the most unfeigned pleasure he reads a report with which there is no fault to find except that of its brevity.

The report before us, sets forth in a few modest words the record of daily duties well performed, of work intelligently planned and conducted, with a steady purpose to improve and enlarge this sphere of action in the not distant future. First the College, the Girls School and the Orphanages have been carefully looked after, sanitary matters have received due attention. Cleanliness, ventilation, out-door sports and recreation for both boys and girls are fully recognized as means to that great end the *mens sana in corpore sano*. An epidemic of Rôtheln was introduced by some of the boys on their return from vacation, and a still more serious one of scarlet-fever was imported, "nine lads being at one time affected and isolated in the infirmary." No deaths.

The Orphanage, where small waifs of humanity are taken in, suffering from every conceivable inheritance of suffering, is always an anxious place for the medical man, but is also the school of experience. The report shows that the orphans have done well, though two casualties are recorded.

The Dispensary at St. John's has been well attended during the year, and the recapitulation shows the attendance to have been 4,880

Vaccinations 782

Total 5,662

This does not include visits made in the neighborhood, where the local mandarin was one of the patients, but does the work at the out-stations under the charge of the Rev. H. N. Woo.

The native clergy and the Biblewoman have laboured among these poor sick and suffering ones, and we trust that the work amongst them has not been in vain and that the seed thus sown may prove fruitful and multiply 30 nay 60, or, it may be, even an hundred fold.

TWENTY-SECOND ANNUAL REPORT OF
S. LUKE'S HOSPITAL FOR
CHINESE, SHANGHAI.

For the year ending 31st October 1890.

"To do good by stealth and blush to find it fame" deservedly and aptly applies to the Report of the Hospital here under consideration. We, however, regret its brevity, and almost entirely statistical make-up. Dr. BOONE, in a few modest words, "trusts" that good has been done. When we read of the thousands who have received comfort and help within these hospital walls, and think again of the many thousands dependent upon those who have received these inestimable blessings, we feel assured that this wish has been fulfilled in all its noble entirety. It requires but little effort of imagination to realize that this hospital is doing great good, and relieving an immensity of sad, direful suffering; and, further, judging from the very satisfactory condition of the finances, which are carefully and wisely husbanded, we note that this fact is equally appreciated by foreigners and Chinese alike."

The opening remarks make grateful recognition of Dr. R. A. JAMIESON'S "un-remitting and valuable services," of Dr. H. M. PERKINS, and of Dr. DUNCAN REID.

The following table gives a summary of the work done during the year:—

Description.	Intern.	Extern.	Total.
Native Males.	451	12,224	12,675
" Females	44	8,106	8,150
Foreign Males	13	296	309
" Females	4	152	156
	512	20,778	21,290

"One hundred and twenty-nine surgical operations were performed in the hospital. Six hundred and two minor surgical operations were performed in the out-patient department."

"Seventeen deaths occurred during the year. The Chinese have a habit of bringing persons to the hospital to die, so as to save the trouble and expense of a funeral from their own homes."

"Since our last report was issued we have been enabled by the use of the Gutzlaff Fund to purchase a corner lot in front of the one on which the hospital stands, and to put up on it a suitable building as a ward for women and young children. The new building was formally opened by Bishop BOONE, on the 9th of September. The lady doctor in charge, Dr. MARIE HASLEP, finds a plenty to do, and will, we trust, be able to give an interesting account of her department in the report for 1891."

"The medical pupils attended the hospital regularly, and have received clinical instruction."

"Daily services for the out-patients have been held in the chapel, in addition to the work done in the wards by the clergy, who have regularly visited the patients."

The Report of the Medical Department of the Wesleyan Mission, Central China, for 1889, is at hand. It is tastefully gotten up, carefully edited, and well published. Two capital and pleasing woodcuts give us an excellent impression of the wards of this evidently well-arranged hospital. We quote the following from the "Historical."

"Nearly 30 years ago, War and Treaty threw open a great city in the heart of China, to foreign residence, and Wesleyan Missionaries followed in the wake of the first traders. Soon came the problem how to reach the hearts of the teeming multitudes, how to show them the life of Christ so that it should be lovely in their eyes. It was not long ere the sorrows and disease of hapless sufferers seemed to point to a new way, and

more than a quarter of a century has passed since Dr. PORTER SMITH came to show the Chinese the practical sympathy of a Christian physician. The medical work has had changing fortunes since then; first a dispensary in a native house, next a neat little hospital, for men and women alike, in the heart of the city, and a dispensary amid the mandarins of Wuchang across the Yangtze; fifteen years of happy ministering to the sickness of some ten thousand patients a year. Then came the time of disappointment when no one could be sent out to succeed the last medical man, when the hospital was closed, the influence of those years of labour ceased to accumulate, the building decayed and finally had to be pulled down."

After years of waiting, in 1885, a beginning was made in dispensary work, followed soon by the arrival of the present staff of workers. Drs. HODGE, MORLEY and Miss SUGDEN. Two Hospitals have been erected, one containing 23, the others 25 beds, a third is in process of building. The report continues—

"The completion of the Hospital at Hankow, the further development of the work at Wuchang and Teh Ngan and other cities as yet untouched—these lie among the hopes of the future: for the present we rejoice that the sad interruption of ten years is at an end and that these various agencies represent a Medical Mission once more in full activity."

Two months attendance only is reported for the Men's Hospital, Hankow:—

Totals for the Three Hospitals.

Out-Patients	...	...	7,701
In-Patients	...	...	208
Outside Visits	...	...	104
Operations	...	...	21

We extract the following closing words:—

"It is our hope that such thorough medical treatment, coupled with consistent firmness and kindness, will gain its due place of influence over the Chinese far and near, and that He whose love and pity are the living spring of all our service, may thus be brought near to these who know Him not. We endeavour, by His grace, so to live and

heal that the motive of our life-work may be unmistakable, and even the materialistic practicalness of the Chinaman may lead to Him whose sympathy has begotten ours, that loveless lives," brightened with a new thought and a new hope, may rejoice to find in Holy Writ the utterance of their new-born love 'We love because He first loved us.' "

REPORT OF THE NEERBOSCH HOSPITAL.

This Hospital was opened March 1889, and, allowing for unavoidable closing, has been in actual work for twelve-and-a-half months.

"The hospital was called Neerbosch Hospital, because it was at the Neerbosch Orphanage (Netherlands) that the first money for the building was received. The first money being five cents, given by a little orphan girl in the Neerbosch Orphanage. It was *all* she had."

"Very recently some Chinese friends have contributed a sum sufficient to enlarge the hospital, so that next year there will be room for forty beds in the enlarged wards."

"April 21st, 1890, a second dispensary was opened at Lam-sin, about thirteen miles distant from Sio-ke. Patients were treated one day every week, but we found it exceedingly difficult to get there, as the chair-bearers of the Sio-ke region have boycotted us. But for the kindness of Rev. A. S. VAN DYCK, who presented us with a horse, we would have had no means of conveyance."

Statistical Abstract.

Patients admitted to the hospital	317
New names on register for Sio-ke:—	
Males	3,033
Females	448
New names on register for Am-sin:—	
Males	395
Females	113
Total	3,989
New cases treated	4,342
Return visits	12,912
Total	17,254
Visits made to patients in their homes	328
Surgical operations	285
Teeth extracted	127
Vaccinations (about)	30

Medical Curiosities.

"Among the curious cases which came under our notice we may mention two. One was a case of protracted labor, where the father of the woman, seeing that both mother and child were in danger, seized a sharp iron hook, resembling those on which the butchers hang dressed beef, but here used on the native steelyard. Introducing this into the scalp of the child, he succeeded in saving both mother and child. Nearly the whole scalp was detached in three places from the skull. The father walked twelve miles to the hospital with the child in his arms. The wound was sutured with silver wire, and to-day the infant is a vigorous boy.

"The mother of this child came to the hospital, with four peculiar tumors of the scalp, resembling rolls of skin, and extending from the crown to the neck. On cutting into one of them, it was found to consist of oedematous tissue. It was neither possible nor necessary to remove them. The tumors were evidently caused by the peculiar manner of hair-dressing in vogue among the women of this region. They draw the hair forcibly backwards over a stiff wire frame, extending backwards about six or eight inches. This they load with heavy ornaments, thus causing a continuous strain upon the scalp.

"The comparatively small number of eye, and the exceptionally large number of spleen cases met with in this region, are worthy of note."

The report of "The Foochow Native Hospital and Dispensary," for 1889 gives a total for 8 years of work:—

No. of In-patients	5,101
" Out-patients (new)	31,715
for year 1889:	
In-patients	688
New Out-patients	5,248
No. of visits	13,173
Total number of operations:	
On In-patients	137
" Out-patients	498
Total	635

The above-named Hospital appears to be supported by subscriptions from the foreign and native residents of Foochow.

MEDICAL PROGRESS.

ARSENITE OF COPPER IN DIARRHŒA.

Dr. BRANCH CLARK, in the *New York Medical Journal*, calls attention to the value of arsenite of copper in the treatment of diarrhœa, dysentery, cholera morbus, and cholera infantum. He says "I have not lost a single patient with cholera infantum since I began to use it. It is given largely diluted with water, and is not at all disagreeable to take. I think it was Dr. JOHN AULDE, of Philadelphia, who first advocated its use, about two years ago. I have used it about thirty times within a few weeks without a single failure. It is put up in tablets of $\frac{1}{16}$ of a grain, one of which is to be dissolved in four ounces of water, and a teaspoonful of the solution (containing $\frac{1}{16}$ of a grain) taken every fifteen minutes for the first hour and then every hour until relief is obtained. For children proportionally smaller doses are used. I feel sure that arsenite of copper may be made to reduce the mortality by cholera infantum as bichloride of mercury has reduced that by diphtheria."

IODOFORM IN CARBUNCLE.

Dr. WHITEHEAD of Manchester, has been getting good results in the treatment of carbuncle, by the subcutaneous injection into the base of the tumor of a concentrated ethereal solution of iodoform. The pain is slight, and the improvement on the second day is marked. In a week only a scaly scab is left, and finally the scar left is superficial and inconspicuous.

SALT FOR HEADACHES.

An English doctor reports over thirty cases of headache and facial neuralgia, cured by snuffing powdered salt up the nose.

In cases of chaneroid which are excessively painful, Prof. GROSS directed the following wash :—

R. Chloral hydrat., gr. viij.
Aque destillat., f. oz. j. M.

Sig.—Apply on cotton.

THE TREATMENT OF DYSENTERY IN CHILDREN.

VEILLARD recommends the following mixture in the dysentery of children :

R.—Powdered ipecacuanha 25 grains.

Boil for five minutes in $3\frac{1}{2}$ ounces of water. Filter and add :

Tincture of opium, from 2 to 4 drops.

Cinnamon water 3 drachms.

Syrup of orange flowers 6 „ —M

Dose, for a three-year-old child, one dessert-spoonful every hour, or at longer intervals if nausea is produced. To quiet tenesmus enemata containing tincture of opium, or enemata of infusion of chamomile or of eucalyptus flowers, should be used.—*Annals of Gynecology and Pædiatry*, May, 1890.

For superficial Burns, Mr. C. HEATH, of London, recommends a mixture of two parts of castor-oil and one part of collodion.

When ordinary remedial measures fail to arrest hemorrhage from the lungs in a reasonable time, Prof. DA COSTA recommends sulphate of copper in $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$ gr. doses, or tinct. matico, f. dr. $\frac{1}{8}$ s every four hours.—*Canada Medical Record*.

REGULATING MATRIMONY.

A bill has been introduced into the Legislature of Kentucky, which prohibits marriage with an idiot, lunatic, pauper, vagrant, tramp, drunkard, gambler, felon, or any person rendered physically helpless or unfit for the marriage relation, or any person with a violent temper, or who has within one year been a frequenter of any immoral house.

 IODOFORM OIL IN TUBERCULOUS AFFECTIONS OF BONES.

Iodoform oil is at present used in Germany for treating tuberculous affections of joints and bones. This oil is injected into the affections of joints and bones. This oil is injected into the tissues just like a solution of iodoform in ether, which, however, has been given up for reason of its extreme painfulness, and of its occasionally causing gangrene. A twenty per cent. mixture of iodoform with olive-oil, prepared fresh for each injection, is used. Part of the iodoform will decompose if this mixture is kept for some time, such decomposition being easily found out, as it causes a reddish-brown coloration; 30 to 45 minims of this mixture are injected every eight days, on different places, by the aid of a Pravaz syringe. Previous careful disinfection of the skin is advisable.—*The Provincial Medical Journal*.

ANÆSTHESIA.

An Address delivered before the International Medical Congress, Berlin, August 6th, 1890.

By H. C. WOOD, M.D., LL.D.,

Professor of Therapeutics in the University of Pennsylvania.

The following rules are so good as to be worth quoting :—

"In conclusion I may be allowed to state, that if the results and deductions arrived at in this address are, as I believe, correct, the rules for the proper treatment of accidents during anæsthesia can be summed up in a very few words,—avoid the use of all drugs except digitalis and ammonia. Give the tincture of digitalis hypodermically.

Draw out the tongue, and raise up the angle of the jaw, and see that the respiration is not mechanically impeded. Invert the patient temporarily.

Use forced artificial respiration promptly and in protracted cases employ external warmth and stimulation of the surface by the dry electric brush, etc., and above all remember that some at least, and probably many of the deaths which have been set down as due to chloroform and ether, have been produced by the alcohol which was given for the relief of the patient."

 SOCIETY REPORTS.

The regular monthly meeting of the Shanghai Medical Missionary Association, took place at St. Luke's Hospital, on the afternoon of Tuesday the 17th of June 1890. Present, Dr. REIFSNYDER the President, in the chair, Drs. BOONE, HASLEP, and Honorary Members Drs. JAMIESON and LALCACA. The routine business being disposed of, Dr. REIFSNYDER then vacated the chair to Dr. HASLEP, to read her paper "Modern Surgery as seen during her late visit to Europe and America." In the discussion which ensued upon the reading of the

paper, Dr. JAMIESON remarked, with reference to a case of reposition of an inverted uterus by abdominal section, that so little force could be exerted by the divarication of two fingers, the tissue in that instance must have been lax enough to permit reposition from the vagina without section of the abdominal walls. As regarded the administration of morphia after inter-abdominal operations, it did not seem reasonable to lay down any rigid rule, which would deny morphia in cases where there was much restlessness or pain or chloroform vomiting, which would not yield to hot water and sinapisms. This too was the opinion of many leading operators in England, although absolute refusal of morphia was the practice of one or two of the most successful men. For his own part, within his limited experience, he had given morphia in rapidly decreasing doses in all his cases. That day he had removed the second and final dressing from a particularly difficult case of removal of the uterine appendages, which he had operated on exactly three weeks ago. In this the right ovary, which was only slightly enlarged, was completely occupied by old and recent blood-clots, and the right tube was full of pus. The adhesions were trivial, but on knotting the ligature round the uterine extremity of the tube the silk cut through the tissue, leaving the tube free. He had drawn the divided peritoneum together with a fine silk suture over the virtual opening in the uterine wall, and as sponges had previously been packed round the tube the peritoneum was not soiled. On the left side the adhesions were extensive and peculiar, the tube was as large as the middle and ring finger together, its walls greatly thickened, and its lumen tightly distended with pus. A loop of small intestine was intimately adherent to it, forming half a spiral round it. The speaker had been forced to enlarge the original 2 inch incision in the abdominal wall to $3\frac{1}{2}$ inches, in order to get sufficient purchase to break down the adhesions, which bled profusely. When this was accomplished the ovary was found firmly attached to the sigmoid flexure, and here again there was smart hemorrhage. The left ovary was about two-thirds of the size of the thumb, and was reduced to a shell containing cheesy pus. On this side the ligature on the uterine end of the tube held, and sponge packing prevented any accident on section. He did not flush the peritoneum, although there was a great deal of blood in the pelvis. The pelvis was cleaned with sponges wrung out of recently boiled water, held in long catch-forceps, and when the sponges were withdrawn almost clean the abdomen was closed with four silk sutures embracing all the tissues of the wall. A superficial suture was inserted between each two of the deep sutures. A layer of boric acid was sprinkled over the incision, which was then covered with a pad of pure cotton held in its place by broad straps of adhesive plaster, and the whole was secured with an ordinary flannel belt. There was but slight sickness, but there were severe abdominal pains and much restlessness. On successive nights $\frac{1}{4}$, $\frac{1}{8}$, $\frac{1}{16}$, $\frac{1}{32}$, and $\frac{1}{64}$ grain of morphia was given hypodermically, and hardly any food was administered for 48 hours. The temperature once and only once touched 100° . The bowels

remained closed for a week, and were then opened with sulphate of magnesia. Recovery was complete at the end of a fortnight. This apparently unfavorable case proved that without chemical antiseptics, without any complicated peritoneal toilet, and without drainage, perfect results could be obtained provided there was reasonable care in operating and a pure atmosphere round the patient. He (Dr. JAMIESON) would like to ask the reader of the paper whether stitching of the peritoneum enveloping the pedicle after hysterectomy to the parietal peritoneum was practised by the operators she had recently seen. He had never performed hysterectomy, but on theoretical grounds he had always considered this plan as one to be adopted whenever a case should fall in his way. In connection with Apostoli's electrical treatment, he referred to a case of enormous uterine myoma in his own practice several years ago. The tumor was subject to wide variations in size, occasionally diminishing by at least a sixth or a fourth. He had advised against interference, as the menopause was not far off, and bleeding was trifling though discomfort was constant and pain occasionally severe. Within two years after the cessation of menstruation the tumor had completely disappeared. Lastly, he desired to correct a statement made by the reader, to the effect that LAWSON TAIT denied the possibility of diagnosing ectopic pregnancy before rupture. What LAWSON TAIT really does say is that the diagnosis is seldom made because there are in general no symptoms to lead patients to seek advice. Dr. BOONE asked if it was the *serre nœud* of KOEBERLE which was used in securing the stump after hysterectomy? Said that MEREDITH laid stress on clamping broad ligaments, then dividing them, securing every bleeding point, then applying elastic ligature and clamping it so that this ligature could be retightened when necessary. Dr. MEREDITH also spoke of the necessity for shutting off the abdominal cavity by stitching the peritoneal covering of the stump of the uterus to parietal peritoneum in order to prevent escape of putrid matters from stump into the peritoneal cavity. He asked Dr. JAMIESON if any pus was effused into peritoneal cavity during the operation for the removal of ovaries and tubes in the first case. Dr. JAMIESON replied that no pus, only blood in considerable quantity, reached the peritoneal cavity and was thence removed by sponging.

Dr. BOONE said that where no pus or putrid matters were effused into the peritoneal sac, it was optional whether sponging or irrigation should be resorted to in making the toilet of the peritoneum. In cases where pus or any offensive matters were poured out or lodged in the peritoneal cavity, all the modern authorities were agreed that irrigation with hot non-irritating fluids offered the best means of cleaning out the cavity; hot water, whether distilled or simply pure, was most generally used. The hot water douche thus used was a most valuable means of rallying the failing strength of a patient, and it alone could reach and cleanse out every part. Adhesions should be greatly separated with the finger,

pockets of pus, broken down, and freely washed out. Drainage by glass tube, generally reserved for cases where the peritoneum was soiled by foul matter, or where very extensive adhesions had to be separated. Dr. BOONE asked Dr. REIFSNYDER, if Dr. BROOMALL did not pass her fingers into inverted uteri in shape of a wedge and using counter pressure in the vagina with the other hand, thus exert very considerable force to dilate the inverted neck of the uterus and enable the reduction of the organ to take place. He related a case where a Gynæcologist, in New York, after abdominal section for the reduction of an inverted uterus used a modified form of glove-stretcher, which he had made for the purpose. With this instrument he readily dilated the constricted portion of the uterus and was then able to effect reduction. Dr. BOONE asked Dr. REIFSNYDER if the method of Apostoli for the relief and cure of uterine fibroids was gaining ground in the U.S. Dr. REIFSNYDER said that not many Gynæcologists seemed to put their faith in Apostoli's method for treatment of uterine myoma. This closed the discussion.

Dr. HASLEP was then elected Secretary and Treasurer of the Society, and the meeting adjourned.

21st October.

The routine business being disposed of, the Secretary then read a paper on "Progressive Pernicious Anæmia," by Dr. GALE.

In the discussion which ensued Dr. HUNTER said, that he had never seen a case of Progressive Pernicious Anæmia, though one that seemed much like it, he had decided to be Leucocythæmia, even though the result was fatal. A remark of DA COSTA's, made on one of his lectures, occurred to him, that the disease was as distressing as its name implies.

Dr. BOONE stated that he had never seen a case in a Chinese, but had in San Francisco. It went on from bad to worse. No post-mortem was allowed. This disease was now attracting much attention and being carefully studied. The case reported seemed more like one of Purpura than Progressive Pernicious Anæmia. Dr. HUNTER having read a report of a case on the disease in question, then gave a synopsis of a book in Chinese text, subject *E shā*. The idea being to describe a form of Malignant Eruptive Contagious Fever. He thought this meant scarlet-fever, not diphtheria, the book speaking of a dropsy which is so often a sequelæ of scarlet-fever, and though Dr. EDKINS thought it referred to diphtheria, and it was one of the names used for this disease, he was inclined to believe it scarlet-fever. Dr. BOONE asked if it dwelt on the throat symptoms. Dr. HUNTER said it did. Dr. BOONE reported a case of fracture of the skull, on account of its medico-legal aspect, the fracture having been received in a fight. If

the man died after operation, the doctors would be given as the cause on the trial that would follow. He had applied to the Japanese Consul, the patient being a Japanese, who had begged him not to operate for fear his countrymen would raise trouble. If only a blood-clot pressing on the brain caused his present symptoms, trephining would be of benefit; if more serious, harm would not be done by the operation. Dr. BOONE then showed a clamp forceps for securing and ligating arteries, especially those deeply seated, Tieman and Co. had made at his request.

Proposals regarding future arrangements being made, the Society then adjourned.

MARIE HASLEP,
Honorary Secretary.

NOTES AND ITEMS.

The following is the address presented by the communities of Tokio and Yokohama, Japan, to Dr. and Mrs. HEPBURN, on the occasion of the celebration of their golden wedding, 27th October 1890.

"We are here as the representatives of this community generally, wishing to honour this occasion as one unique, we believe, in the history of this Settlement, and especially in that this day witnesses the welding of that golden band which half a century of love and happiness in wedded life has been daily forging for you. Receive, we beg of you, at our hands, these small tokens of the respect, esteem, and affection which is felt for you by us all. There are thirty years and more to bear their witness to your walk and conversation amongst us, and it is on their testimony that we are bold to declare our high appreciation of your blameless lives, your untiring labours as Christian Missionaries, your works and labours of love towards all men. There are, besides, thousands of Japanese, aye, tens of thousands who, Dr. HEPBURN, must bear in their hearts a grateful recollection

of your skill as a physician, and your kindness as a fellow man; while Japanese and foreigners alike owe to you the first dictionary of the language of this land, a splendid work, the fruit of years of hard toil, as we know, and the benefits of which cannot be estimated. Of your other incessant labours in a like field, hidden by your modesty from many eyes, we might go on to speak; much more we might say, but, that we be no further burdensome to you, we will conclude, dear friends, with the hearty wish that gentle time may ripen the gold of to-day into the glistening diamonds of an added 25 years; and that in a happy old age, the good fight finished, the course fulfilled with joy, you may pass to receive that amaranthine crown which the hand of time can never touch, and where labour shall be rest, and where joy in the presence of the Master you serve shall be your full reward."

Dr. HOWARD TAYLOR, in a genial, cheery letter from Gauking, tells us that he is fully occupied at present studying away at the

language, "and most interesting I find it, especially the character. My little trip into Honan, etc., gave me a pleasant and useful introduction to the spoken language." We are pleased to realize that Dr. TAYLOR finds the character interesting, we have held varied opinions on this matter.

Upon their return from Ningpo, Dr. and Mrs. DOUTHWAITE were good enough to pay us a visit in the country. To say that our genial and kindly friend looked well and happy, would be to belie the beautiful evenings we are now enjoying, lit up by a veritable honey-moon, and typically suggestive, please God, of the bright and calm future in store for them. We offer Dr. & Mrs. DOUTHWAITE, on behalf of ourselves, and, we are sure we may add, the Medical Missionary Association of China, our hearty and earnest congratulations.

The Treasurer in acknowledging many postage stamps of varying denominations, in payment of Association Dues, regrets that, not only is their acceptance in inverse proportion to their usefulness, but that he didn't emphasize this fact when recently sending out the year's accounts. He further adds, that he can no longer dispose of them among his friends, who are now amply supplied and proportionately grateful, even as he is; that they are declined at their respective places of nativity, and he hasn't time, now that the days are so very short, to peddle them about Shanghai.

With regret we quote the following passage in a letter recently received from Dr. KERR:—

"Mrs. Dr. HAPPER goes home, in charge of a nurse, a permanent invalid. Dr. HAPPER has been in bad health for some time and will go home in February next."

Dr. GEORGE COX writes us, date of 24th October, "that he is hoping soon to start for Tai-yuen-fu, Shansi, and take up the work of the Schofield Memorial Hospital." His address will be, *Care of The Sec. C.I.M., Tientsin.*

Referring to two MSS. which we have received, and beg to decline, we must remark, that when a manuscript is sent to this Journal, a similar manuscript, or any abstract thereof, must not be or have been sent to any other periodical, unless we are specially notified of the fact at the time the article is sent to us.

Miss VIRGINIA C. MURDOCK, M.D., of the North China Mission of the A.B.C.F.M., recently arrived in San Francisco on a home visit.

We are again indebted to the generosity of our accomplished historiographer Dr. JOS. C. THOMSON, of Macao, on this occasion for the photograph of Dr. LOCKHART, facing the title page of this Number of the Journal.

IMAGINARY ILLNESS.

Nothing more amusing has been written on this subject than the following by Mr. Jerome K. Jerome in his clever *Three Men in a Boat*:

"I had just been reading a patent liver-pill circular, in which were detailed the various symptoms by which a man could tell when his liver was out of order. I had them all.

"It is a most extraordinary thing, but I never read a patent medicine advertisement without being impelled to the conclusion that I am suffering from the particular disease therein dealt with in its most virulent form. The diagnosis seems in every case to correspond exactly with all the sensations that I have ever felt. I remember going to the British Museum one day to read up the treatment for some slight ailment of which I had a touch—hay fever, I fancy it was. I got down the book, and read all I came to read; and then, in an unthinking moment, I idly turned the leaves, and began to indolently study diseases generally. I forget which was the first distemper I plunged into—some fearful, devastating scourge, I

know—and, before I had glanced half down the list of 'premonitory symptoms,' it was borne in upon me that I had fairly got it.

"I sat for awhile, frozen with horror; and then in the listlessness of despair, I again turned over the pages. I came to typhoid fever—read the symptoms—discovered that I had typhoid fever, must have had it for months without knowing it—wondered what else I had got; turned up St. Vitus's Dance—found, as I expected, that I had that too,—began to get interested in my case, and determined to sift it to the bottom, and so started alphabetically—read up ague, and learnt that I was sickening for it, and that the acute stage would commence in about another fortnight. Bright's disease, I was relieved to find, I had only in a modified form, and, so far as that was concerned, I might live for years. Cholera I had, with severe complications; and diphtheria I seemed to have been born with. I plodded conscientiously through the twenty-six letters, and the only malady I could conclude I had not got was housemaid's knee.

"I felt rather hurt about this at first; it seemed somehow to be a sort of slight. Why hadn't I got housemaid's knee? Why this invidious reservation? After a while, however, less grasping feelings prevailed. I reflected that I had every other known malady in the pharmacology (*sic*), and I grew less selfish, and determined to do without housemaid's knee. Gout, in its most malignant stage, it would appear, had seized me without my being aware of it; and zymosis I had evidently been suffering with from boyhood. There were no more diseases after zymosis, so I concluded there was nothing else the matter with me.

"I sat and pondered. I thought what an interesting case I must be from a medical point of view, what an acquisition I should be to a class! Students would have no need 'to walk the hospitals,' if they had me. I was a hospital in myself. All they need do would be to walk round me, and, after that, take their diploma.

"Then I wondered how long I had to live. I tried to examine myself. I felt my pulse. I could not at first feel any pulse at all. Then, all of a sudden, it seemed to start off. I pulled out my watch and timed it. I made it a hundred and forty-seven to the minute. I tried to feel my heart. I could not feel my heart. It had stopped beating. I have since been induced to come to the opinion that it must have been there all the time, and must have been beating, but I cannot account for it. I patted myself all over my front, from what I call my waist up to my head, and I went a hit round each side, and a little way up the back. But I could not feel or hear anything. I tried to look at my tongue. I stuck it out as far as ever it would go, and I shut one eye, and tried to examine it with the other. I could only see the tip, and the only thing that I could gain from that was to feel more certain than before that I had scarlet fever.

"I had walked into that reading-room a happy, healthy man. I crawled out a decrepit wreck.

"I went to my medical man. He is an old chum of mine, and feels my pulse, and looks at my tongue, and talks about the weather, all for nothing, when I fancy I'm ill; so I thought I would do him a good turn by going to him now. 'What a doctor wants,' I said, 'is practice. He shall have me. He will get more practice out of me than out of seventeen hundred of your ordinary, commonplace patients, with only one or two diseases each.'

* * * *

"Going back to the liver-pill circular, I had the symptoms, beyond all mistake, the chief among them being 'a general disinclination to work of any kind.' What I suffer in that way no tongue can tell. From my earliest infancy I have been a martyr to it. As a boy, the disease hardly ever left me for a day. They did not know, then, that it was my liver. Medical science was in a far less advanced state than now, and they used to put it down to laziness."

Just upon going to press we regret to learn that a piratical attack was made, on November 27th, on Miss M. M. PHILLIPS, M.D., who is in charge of the Southern Methodist Mission Hospital, at Soochow. In returning from Shanghai the boat was attacked by a band of pirates armed with bayonets and fire-arms. Ineffectual resistance being made by the boatmen, the pirates entered the boat, appropriating all they could lay hands upon. There is something very ungrateful in Miss PHILLIPS being the victim of such an outrage, seeing the good work she has done in the immediate neighbourhood of the scene of attack.

IN MEMORIAM.

Another soldier of Christ has fallen at his post. FRANKLIN ELMORE MCBRIDE, M.D., departed this life at Kalgan, China, July 6th, 1890.

He arrived in Kalgan, October 14th, 1889, and at once began the medical work and the study of the language. He held daily clinics at the Dispensary, and visited many patients at their homes. His treatment of the sick elicited from the Chinese the highest tributes of admiration and gratitude. Whatever he did, he did with energy and zeal. He was frequently called upon to save the lives of opium suicides, and always was ready to deny himself needed rest, hoping that the people might see in his work for them a token of the love of Christ.

Dr. MCBRIDE had a strong and wiry physique, that enabled him to work hard and long, without showing the usual signs of fatigue. In April, when returning from the Annual Meeting of his Mission, he walked thirty-five miles in one day. On June 6th, he received a call to visit Ta Tung Fu, to help a member of the China Inland Mission, who was dangerously ill. He went with all possible haste, but the travelling by night, and irregular diet on the way injured him, and he was not well at any time after his

return to Kalgan. Still he resumed his medical work and studies with his customary ardor. He was treating two Chinese patients who had typhus or typhoid fever, and from them he must have taken the fatal disease. On the 25th of June he was taken sick. From that time he sank rapidly, with malignant typhus fever, and fell asleep in Jesus on July 6th. Everything was done for him that love or medical skill could do. The Doctor was under the care of Miss Dr. SINCLAIR, of the Presbyterian Mission, Peking, who, with Miss MCKILLICAN, of the same Mission, devoted themselves most heroically to the task of saving, if possible, the patient's life, and of ministering to his comfort. But the Master called His servant home. To us who remain, it seems an inscrutable mystery, that so young, and able, and consecrated a missionary, should be taken from so needy a field. The event is, as it were, the voice of Jesus, saying: "Be ye also ready." Our Brother was with us less than nine months, and was as ambitious as any one for a long life of useful service. God has called him to a higher sphere of loving activity. His departure impresses on us the truth, that what we are is much more important than how much we do, and that our success is not to be judged by the apparent results, but by our faithfulness while permitted to work. "He liveth long who liveth well." May the Lord of the harvest send forth laborers into His harvest, that the work which our Brother has laid down may be taken up anew, that suffering humanity may be relieved, and that the love of the Lord may be manifested among the heathen! For the afflicted widow and fatherless children, we ask the prayers of God's people.—
The Rev. J. H. Roberts, Kalgan, China.

BIRTH.

At Siu Ching, Shantung, October 10th, the Wife of the Rev. J. F. SMITH, M.D., of a Son.

MARRIAGES.

At Trinity Cathedral, Shanghai, on the 22nd October, by the Rev. H. C. HODGES, M.A., ARTHUR W. DOUTHWAITE, M.D., F.R.G.S., to CONSTANCE H. GROVES, eldest daughter of E. K. GROVES, Esq., of Bristol, England.

At the Cathedral, by the Rev. W. W. CASSELS, assisted by the Rev. H. C. HODGES, M.A., Dr. G. COX to Miss THOMAS.

ARRIVALS.

At Shanghai, September 9th, Dr. and Mrs. T. C. BRANDLE, for Irish Presbyterian Mission, Newchwang.

At Shanghai, in September, Dr. JAS. H. MCCARTNEY, of the A. M. E. Mission, for Chinkiang.

At Shanghai, September 30th, Dr. and Mrs. I. L. VAN SCHOICK and child, for Am. Presbyterian Mission (North), Tsi Ming Chow, Shantung.

At Shanghai, 14th October, Dr. THOS. R. JONES, and Mrs. JONES, M.D., Miss M. L. STEVENSON, M.D., for Tientsin, Miss R. R. BENN, M.D., and Dr. CAMPBELL, of the A. M. E. Mission, for Soochow.

At Shanghai, October 21st, Miss E. WORLEY, M.D., of the Am. Presbyterian Mission (North).

At Shanghai, November 24th, WILLIAM PIRIE, L.R.C.S., L.R.C.P. Edin., Church of Scotland Mission, for Fchang.

DEPARTURES.

From Shanghai, November 7th, Miss A. D. GLOSS, M.D., for the United States.



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